

LOMBARD

THE WEEK IN THE COURTS

Surely solid Nelves must play for England again

Money that won't A crime unpunished? come back

BY MALCOLM RUTHERFORD

In 1974 the total external public debt of 86 developing countries rose by nearly 25 per cent to just over \$151bn. At the end of 1973 the total was around \$100bn, and at the end of 1967 only \$80bn. The figures are taken from the annual report of the World Bank published last week. There was undoubtedly a further rise in 1975, but, as the report says, the end of 1974 is the latest date for which reliable figures are available.

It is true that they are not necessarily as bad as they look. They do not allow for inflation and it is fair to point out that the cost of servicing earlier debt does not increase as prices go up. It is also useful to make some distinction between different groups of developing countries (the poor, the middle, the rich, with incomes per head of under \$200 a year, the medium poor with incomes between \$200 and \$375, and the relatively well off, and between different kinds of borrowing.

If this is done, it can be seen that in 1974 the debt of the poor and medium poor together amounted to \$54.7bn, or just over 36 per cent of the total. It is notable too that the really striking increase in lending has come from the private banks, which accounted for about one fifth of the total debt figure in 1974, about one sixth in 1973, and only about one tenth in 1971.

These figures should be borne in mind when it comes to talk about a debt moratorium. Clearly it would not be easy, even if it were desirable, to write off borrowings from private institutions; some of the banks, after all, may have extended themselves unwisely and there is no obvious reason why they should be compensated for their imprudence. It should not be assumed that all of the developing countries actually want a write-off: some of even the medium poor, let alone the relatively well off, would not wish to go near an international debt conference for fear of impairing their future credit rating.

It seems therefore that if anything is to be done, it would have to be confined to the official debt of only the very poorest countries—a figure of (let us say) about \$30bn. This is a sum which is unlikely ever to be repaid in terms of a transfer of real resources. Mr. Walter Levy, the American oil consultant, has advanced the idea—in conversation, though not, I think, in print—that some sort of write-off of around this amount should now be considered.

Subject to certain conditions, it seems to me that the idea, known in some circles as the "Levy Plan," is worth pursuing. For one thing, a debt moratorium is one of the demands of the Group of 77 developing countries in the North-South dialogue. This dialogue has not got very far and might indeed break down altogether. It might be given a new lease of life if the rich countries were seriously to take up one of the poor's basic requests. For another thing, what is the point of a group of countries continuing to be saddled with a debt which everybody knows has no chance of being repaid except by the wholly transparent device of giving them the money to do so?

The conditions are that it would have to be made absolutely clear from the start that this was a one-off exercise and that machinery must be set up to prevent the accumulation of unrepayable debt in the future. The idea must not be allowed to get around that there can be an official debt moratorium every few years. The Club of Paris, which is essentially concerned with no more than rescheduling, might also have to be reformed or replaced in order to prevent a recurrence of such problems.

OECD role

The forum suggested by Mr. Levy is the OECD, or at least a grouping of OECD members. It might discuss some criteria for debt relief and then deal with the affected countries on a case-by-case basis. The whole process taking perhaps up to two years—though, like Rhodesian independence, it might be achievable in less.

Not the least advantage, if the idea were adopted, is that it might lead to some redistribution of the burden among the lending countries. A large part of outstanding official debt, for example, is to the U.S. and the U.K. But if other rich countries are to benefit from the improved economic conditions of the poorest which a debt write-off would presumably bring, it seems reasonable to suppose that some of them would take a share in the amount being written off and—*who knows?*—pay compensation for the British and American losses.

It is, of course, unwise to assume reason and fairness in others, and it may be that that last sentence should be regarded as fanciful. Yet, at the least, the idea of an official debt write-off for the poorest countries is something to offer. Those who reject it as impractical should recall that they have been offered rather little so far.

BY JUSTINIAN

IT IS never very satisfactory when conduct that appears to be dishonest and involves loss to those deceived by the conduct is not caught by the criminal law. But in the absence of a general offence of dishonesty prejudicing another person financially or economically, it is inevitable that some dishonest transactions will get through the criminal law net.

These are the conclusions from the case at the Central Criminal Court last week in which a man was acquitted, on a judge's direction, of charges that the accused obtained property from four unit trusts by a deception. The accused had devised a scheme whereby he contracted (often over the telephone) to purchase unit trusts, but only completed where the units rose in value. The legal argument centred on the precise status of the contract notes that were prepared when the orders were made. The criminal charges alleged that the unit trusts executed contracts for the total sale of £430,609-worth of certificates by false representations that the accused had the money to pay for them, and that he was in debt to the trust he was falsely representing his ability to pay.

On two grounds the judge ruled that no offence had been committed under the criminal law. What had taken place was not an evasion of debt. The transaction had brought into existence a debt, and that was perfectly lawful. The question was, did the contract notes constitute a pecuniary advantage?

The difficulty here was that when the Theft Act, 1968 was passed, Parliament limited the offence to specific circumstances defined in the Act. An earlier version of the Theft Bill had not provided any precise

definition of "pecuniary advantage." But that disappeared at a later stage; it was argued by the Government spokesman that the defined circumstances covered all forms of obtaining a pecuniary advantage that ought to be made criminal, and that the earlier version of the clause, extending as it did to "any pecuniary advantage," would have introduced undesirable uncertainty into the law. The price of certainty is that some dishonest conduct does not attract criminal responsibility.

It is anomalous that, had the accused devised his scheme, not out of his own fertile mind, but in agreement with some other person, the law would have trapped him. The offence of conspiracy to defraud is not limited to an agreement to deceive someone and by such deceit to defraud him. It is enough if the parties agree to deprive someone of property to which he was, or might become, entitled.

It was the breadth of the conspiracy laws that led the Law Commission in its report earlier this year to recommend that the crime of conspiracy ought to be restricted to conspiracies to commit statutorily defined crimes. The Law Commission acknowledged that its proposed restriction of conspiracy would leave gaps in the area of fraud. And this led the Commission to conclude that it should turn its attention to producing in the near future a code of fraud offences; pending that development the crime of conspiracy to defraud would remain an offence.

Laymen would no doubt express surprise if not astonishment to learn that English law knows no generalised criminal offence of fraud. There are not unnaturally a very large number of offences covering a wide field

of fraudulent conduct, but human ingenuity and the capacity to indulge in dishonest transactions is great. Indeed prosecutors have clung fondly to conspiracy to defraud precisely because it brings within its capacious grasp all manner of dishonest conduct that most people would think ought not to go unpunished. But the many statutory fraudulent offences are scattered over provisions in the Theft Act and a number of Acts dealing with branches of commercial activity, such as the protection of investors and in the Companies Act. If there is not to be a general offence of dishonesty prejudicing another, because such an offence would be so imprecise as to be unusable in its application, there is a pressing need for the legislature to provide specifically for various types of fraud that are currently indulged in.

Frauds are not confined to cases of economic loss. There are many kinds of dishonest behaviour where the victims are prejudiced but do not suffer any financial or economic loss. There have, for example, been many instances in recent years of persons deceiving others in authority (such as bank managers and policemen) in order to obtain records in order to give information that it is their duty not to disclose except to authorised persons. These developments indicate a need for a thorough review of the law of fraud. When that has been undertaken, it should be possible to contradict the charge that English criminal law provides too many loopholes through which the unscrupulous and the commercial malpractitioner is able to walk with impunity. Cases like the unit trust prosecution that ended in an acquittal ought no longer to invite adverse public comment.

Hat-trick for Edgbaston

THE BRITISH outdoor season ended in sunny weather at Wimbledon yesterday when the women of the Edgbaston Priory Club, Birmingham, led by the 1969 Wimbledon champion Ann Jones, and the men of the Hallamshire Club, Sheffield, won their respective finals of the Slazenger National Club Championships.

By beating St. George's Hill, Weybridge, by three matches to one, the Birmingham club recorded a third consecutive victory in this series. At the same time, in which 679 clubs played this year, Hallamshire's margin over Tally Ho, another Birmingham club, was narrower. Although both first pairs beat their opposite No. 2 pairs before

lunch, the Midlands' Phil Slivier, a former British international, and Brian Brown, who played in Irish Davis Cup teams between 1969 and 1973, lost a set in beating Sheffield's Alan Dalton and Giles Hinchcliffe 6-4, 4-6, 10-8.

In the first afternoon match saw a Hallamshire victory when Dalton and Hinchcliffe beat Alan Paine and Brian Storr 6-1, 6-3, so that the issue was already decided when the two pairs met. However, a spirited encounter ended in a victory for Slivier and Brown 6-3, 6-7, 6-3. Against Rupert Armistead and Richard Webb, with two matches to go, each club, Hallamshire had a victory by six sets to four.

In the women's final, Mrs. Jones and her old Warwickshire

county partner, Hazel Chadde, beat Carole Dunningham and Di Hunter without losing a game. Although the St. George's Hill pair, Willie Woodbridge and Jill Mills, also won comfortably, they dropped four games in beating the second Birmingham pair, Caroline Holdsworth and Janice Wainwright 6-0, 6-4.

This latter pair beat its opposite numbers 6-2, 6-4 after lunch, so that, when the two pairs took the court, Mrs. Woodbridge and Mrs. Mills had to win the first tie, but an entertaining match, illuminated by the enduring class of Mrs. Jones, ended with an Edgbaston Priory win by 6-3, 4-6, 6-4.

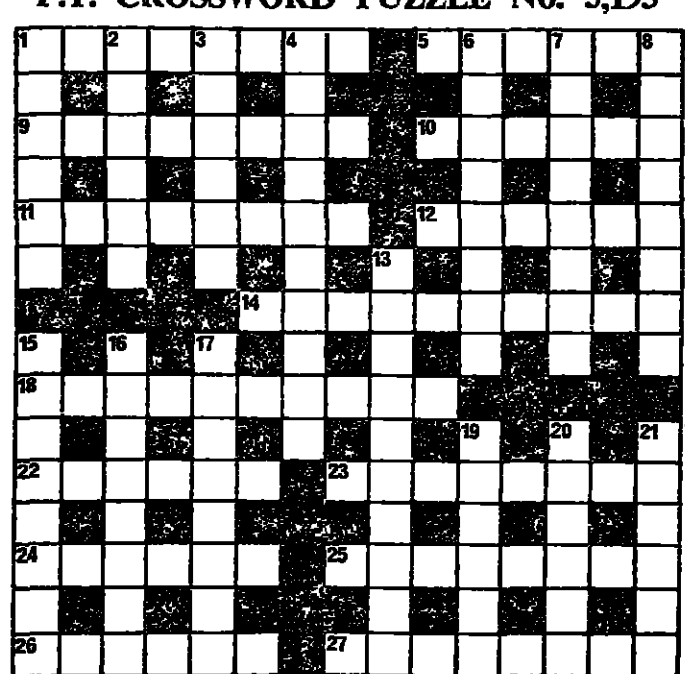
JOHN BARRETT

TV Radio

† Indicates programme in black and white

BBC 1
7.05-7.55 a.m. Open University (UHF only). 8.30 For Schools, Colleges, 10.45 You and Me, 11.00 For Schools, Colleges, 12.45 P.m. News, 1.00 Pebble Mili, 1.45 Trumpet, 2.01 For Schools, Colleges, 3.10 Anno Domini, 3.33 Regional News (except London), 3.58 Play School, 4.30 Deputy Dave, 4.55 Jackanory, 4.40 Blue Peter, 5.05 John Craven's Newsworld, 5.15 Potter's Picture Palace, 5.40 News, 5.55 Nationwide, 6.50 Some Mothers Do 'Ave 'Em.

F.T. CROSSWORD PUZZLE No. 3,193



- ACROSS**
- 1 Mounted for the most excellent journey (5)
 - 5 The way up, or it could be leathery (6)
 - 9 Are its members wooden-headed? One may be (4-4)
 - 10 Designate a southern symbol (6)
 - 11 Venerably taking a month—and half of July (8)
 - 12 Distressed and died leaving strain (8)
 - 14 Open, as the chairman always is (5, 5)
 - 18 Revolution is cold perhaps and certain to follow (10)
 - 21 Big-head for example is in first part of book (6)
 - 23 Oriental article? True, but airy (8)
 - 24 Bumps into Oriental returning in respect (6)
 - 25 What soldiers may be doing for a month in Greek capital (8)
 - 26 Cleared up but bound to accept fish (6)
 - 27 Picture of game killed (8)
- DOWN**
- 2 Poor fellow has to ask for fish (6)
 - 3 Herb I left inside to make food (6)
 - 4 Adjourn in an alcove (6)
 - 6 Instrument yielding twice as much fish (6-4)
 - 7 Try underground for laboratory equipment (4-4)
 - 8 Charge state a pound. It's ancient (8)
 - 13 Telephone team for a good (6)
 - 15 Periods of cricket with coach producing stress (10)
 - 16 Notice he tore is a stickler (8)
 - 17 Mixed like type going to editor (8)
 - 17 A replacement for missing viewer (5-3)
 - 18 Note a copper penny could provide a drink (6)
 - 20 To die from distemper is horrible (6)
 - 21 State requiring soft illumination (6)

2.00 Angela, 2.10 Panorama, 8.00 News, 9.25 The Monday Film: "Little Fauss and Big Halsy," starring Robert Redford, 11.05 To-night, 11.45 Weather/Regional News, All Regions as BBC-1 except at the following times:— 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.45 p.m. Pili Pala, 10.45-11.00 p.m. Pili Pala, 11.00-11.15 p.m. Pili Pala, 11.15-11.30 p.m. Pili Pala, 11.30-11.45 p.m. Pili Pala, 11.45-12.00 p.m. Pili Pala, 12.00-12.15 p.m. Pili Pala, 12.15-12.30 p.m. Pili Pala, 12.30-12.45 p.m. Pili Pala, 12.45-1.00 p.m. Pili Pala, 1.00-1.15 p.m. Pili Pala, 1.15-1.30 p.m. Pili Pala, 1.30-1.45 p.m. Pili Pala, 1.45-2.00 p.m. Pili Pala, 2.00-2.15 p.m. Pili Pala, 2.15-2.30 p.m. Pili Pala, 2.30-2.45 p.m. Pili Pala, 2.45-3.00 p.m. Pili Pala, 3.00-3.15 p.m. Pili Pala, 3.15-3.30 p.m. Pili Pala, 3.30-3.45 p.m. Pili Pala, 3.45-4.00 p.m. Pili Pala, 4.00-4.15 p.m. Pili Pala, 4.15-4.30 p.m. Pili Pala, 4.30-4.45 p.m. Pili Pala, 4.45-5.00 p.m. Pili Pala, 5.00-5.15 p.m. Pili Pala, 5.15-5.30 p.m. Pili Pala, 5.30-5.45 p.m. Pili Pala, 5.45-6.00 p.m. Pili Pala, 6.00-6.15 p.m. Pili Pala, 6.15-6.30 p.m. Pili Pala, 6.30-6.45 p.m. Pili Pala, 6.45-7.00 p.m. Pili Pala, 7.00-7.15 p.m. Pili Pala, 7.15-7.30 p.m. Pili Pala, 7.30-7.45 p.m. Pili Pala, 7.45-8.00 p.m. Pili Pala, 8.00-8.15 p.m. Pili Pala, 8.15-8.30 p.m. Pili Pala, 8.30-8.45 p.m. Pili Pala, 8.45-9.00 p.m. Pili Pala, 9.00-9.15 p.m. Pili Pala, 9.15-9.30 p.m. Pili Pala, 9.30-9.45 p.m. Pili Pala, 9.45-10.00 p.m. Pili Pala, 10.00-10.15 p.m. Pili Pala, 10.15-10.30 p.m. Pili Pala, 10.30-10.4

WORLD TRADE NEWS

Trading off on imports

BY DAVID EGLI IN GENEVA

SELECTED import controls of the kind being called for by the TUC to protect key areas of British industry could become a less risky line of Government action in the future if proposals for a new international safeguards code are acted upon.

An important feature of the "basic elements" of such a code, proposed by the United States to other participants of the multilateral trade negotiations here, is that temporary protective measures to remedy serious injury to domestic producers caused by imports, could be applied without any risk of retaliation or the need to provide compensation to other countries' exporters.

The price to pay would be compliance with internationally agreed criteria for the application of safeguards and stronger guarantees that such measures are of a minimum and temporary nature.

Fear of retaliation under the present system has provided a strong incentive to Governments tempted to take safeguard action to avoid all reference to the existing system under GATT Article 19, but this rule has not obviated the risk of retaliatory or compensatory withdrawal of concessions by other trading partners.

The American proposals would, in effect, commit Governments to take a "broader and more responsible" view of how agreed international norms relate to their imposition of emergency protective measures. As such, it is not so much a tightening of the existing system as a restructuring to provide greater stability.

The proposals will come under discussion next month in the meeting of the safeguards group in the trade negotiations.

Inevitably, they are linked to various other aspects of the negotiations and would depend

on the broader notion that Governments would be obliged both to notify and to consult in the GATT or elsewhere on the imposition of all trade restrictive actions.

An additional and most important element which spills beyond the work of this particular group is the idea that all tariffs should be bound at the end of the current round of trade negotiations. At present the ability of some countries to raise unbound

tariffs provides a ready-made alternative to safeguard procedures, while the disparity in the degree of bindings as between trading partners results in a serious imbalance of obligations.

The proposed code would apply to all measures, including voluntary export restraints, imposed to provide domestic industries with temporary relief from injurious import competition. If governments made such moves in conformity with agreed criteria they would not be subject to retaliation, but retaliatory moves could be warranted if they stepped outside the code. The basic requirements of Article 19 of the GATT would remain but they would be reinforced in a variety of ways.

Close to the American heart is the idea of public domestic investigations where importers and other interested parties could present their views. In addition,

the temporary nature of safeguard action would be reinforced. Governments would be forced to spell out the duration of safeguard measures within a limited time and undertake not to reimpose the measures immediately they expire.

They would also be required to provide assurances that import relief would be phased down to the extent possible during the period of such relief to encourage the progressive adjustment of domestic industries.

Finally, any quantitative restrictions imposed would have to permit continued imports at a level no lower than what was imported during "the most recent representative period."

Governments would be expected to encourage domestic industry to adjust and to desist from their trading partners through GATT, how such an adjustment process would contribute to the removal of the safeguard restrictions.

A standing committee might be set up, composed of several signatories of the new code, to monitor the system and assure adherents that their problems would be examined rapidly thus enabling them to go ahead with a timely safeguard action where it is agreed that this is necessary.

When a consultation procedure is not deemed possible, the United States believes that it should occur "promptly after the final phase of the negotiations."

emergency action is taken." A whole-hearted commitment to a new system of this kind, it is felt, would through the established procedures for notification, consultation and monitoring help either to avoid disputes altogether or to encourage their early resolution through a process of consultation.

A stronger safeguards code could provide a better balance between international obligations in this field and the inevitable determination of Governments to take a degree of freedom of action to cope with domestic problems. They would in any case have a far clearer idea of how far they could go in curbing imports while minimising the dangers of retaliatory action.

At present, compensatory withdrawal of concessions by other countries tends to encourage the permanence of safeguard actions leading to an escalation of beggar-my-neighbour policies.

One important issue which is not spelled out in the American proposals, and one on which the Europeans have so far failed to make up their minds, is that of selectivity. Should it be possible to apply safeguards on a selective or on a non-selective basis?

The proposals, which in their essentials appear not to be out of line with community thinking, seem compatible with either approach.

More generally, the Europeans are hesitant about the overall notion of safeguards without retaliation. It is felt, could unbalance Article 19 in favour of countries which habitually resort to such action. The structure of a new safeguards code would, in any case, be tied in with progress on the tariff side of the multilateral trade negotiations.

What would form a part of the overall package to be traded off in the final phase of the negotiations.

HOME NEWS

Provos threaten peace women after shooting campaigner

BY OUR BELFAST CORRESPONDENT

THE Provisional IRA has made its first direct threat against a woman in the city of Belfast, warning that any woman who issued their threat would have to face the consequences.

The warning, issued by the Provo's Belfast brigade, is being seen as an attempt to forestall increased co-operation with the security forces stemming from the growing campaign against violence. The traditional IRA sentence on informers is death.

The statement followed the first serious attack on a member of the movement. A woman involved in the campaign in a north Belfast was wounded by a gunman's shot.

Miss Mairead Corrigan, one of the peace leaders, said at the weekend that the "women of Ulster must be prepared to die

for peace. She was speaking at a rally in Glasgow at the same time as the Provos in Belfast issued their threat.

The Provo's said: "If any of our volunteers are murdered or imprisoned as a result of an operation between the British crime forces and other members of the peace movement, then these informers must be prepared to accept the consequences."

Mr. Roy Mason, Ulster Secretary, will make his first policy statement since his appointment to-day and is expected to point to the success of the peace campaign as evidence of the lack of public support for terrorism.

Mr. Mason's statement will come after one of the most violent week-ends in the province for some time, certainly since he replaced Mr. Rees.

A teenage girl and a 30-year-old man were murdered in separate incidents on Saturday night, bringing the death toll within 48 hours to five.

The teenager, who died after a gunman burst into her home in south Belfast and sprayed bullets at her father who had opened the door, was the second girl to die in the space of assassinations.

A 17-year-old was killed on Friday while minding a neighbour's child.

There was no set pattern to the week-end killings, but they were clearly sectarian. Three of the victims were Protestants and two Roman Catholics.

Terrorists yesterday booby-trapped a rifle range used by members of the Ulster Defence Regiment in Co. Antrim. Two part-time soldiers were injured in the explosion, one seriously.

Courage ending 'wet rent' system

By Kenneth Gooding, Industrial Correspondent

The Courage brewing group's 3,220 tenants are to have their public house rents raised by a total of about 50m, but they will be charged about 10p a pint less for beer.

The company, part of the Imperial group, is breaking away from the so-called "wet rent" system, traditional in the British brewing industry, by which pub tenants pay more for their beer than free-trade customers, but have their rents fixed at a comparatively low level.

The system, which dates back to the days when the main priority of the brewer was to sell as much beer as possible through his "dial" pubs, was condemned by the Monopolies Commission report on the industry in 1969.

Courage will follow Allied Breweries, the Ind Coope, Tetley and Ansell combine, and Watney, among the major brewers, in ending the system by November.

The move will help pub tenants to plan ahead and they will be able to enjoy fuller benefits from increased beer receipts.

For Courage, it will mean that rental income will flow in more evenly and, it is hoped, the new system should attract a more businesslike approach by their tenants.

Courage is also introducing a phased rent structure intended to reduce the impact of future rent increases. It will spread discounts over a wide range of wines and spirits, and the right for pub tenants to buy from the group's Arthur Cooper off-licence shops.

The new phased rent structure is, claims Courage, unique. The new rent will be agreed with tenants, and will be fixed for a three-year term. But the increase will be phased annually over the period.

Mr. David Shaw, retail trade director, comments: "In terms of brewer-tenant relationships this new rent policy is, in our view, the most progressive step taken by Courage for many years. The changes will provide a positive incentive for the good businessman now in our trade."

Overall, the German company is aiming to raise production from 280,000 in 1975 to 270,000 this year.

Mercedes is experiencing an overall shift of sales towards its compact range, and particularly towards diesel engines. In Britain there has also been a marked trend towards the 200 range.

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

One-pedal bus for London trial

By Peter Cartwright

LONDONERS may soon be riding on a Daimler Fleetline bus with a novel hydrostatic transmission and one-pedal operation that puts British technology in this field ahead of known world developments.

The bus is being delivered towards the end of next month. The hydrostatic unit has been developed in collaboration by the

Government-supported National Engineering Laboratory in Glasgow and Carron Hydraulics of Falkirk. Carron will soon be offering the hydraulic units on a commercial basis.

The system, powered by a conventional diesel engine, incorporates a novel hydrostatic motor in the wheel and a hydraulic pump in the gearbox. Trials indicate acceleration and top speed are comparable with a conventional bus, and there are significant benefits in fuel saving, maintenance costs and brake life.

Several other hydraulic manufacturers, like GEC and Sunstrand in the U.S. and Sisu in Finland, are engaged in similar projects.

Arveling, Barford, part of British Leyland's Special Products Division, which makes road rollers and dump trucks, has also been associated with the development.

The financial Times reported last week that the Government was considering a trial of the one-pedal bus on a commercial basis.

The trial would involve a fleet of 10 buses, which would be used on a regular route in London. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

The trial would be carried out by the Metropolitan Police. The trial would be carried out by the Metropolitan Police.

Volvo fills its market gap

BY TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

VOLVO, the Swedish car manufacturer, yesterday took a further step in its move towards a greater coverage of the market with the launch of a middle-range three-door hatchback. The new L4-Urve 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The reasoning behind the new car, the first widely marketed product to come out of the former DAF plant in Holland since it was taken over by Volvo two years ago, is to give the Swedish company a greater degree of security when there are changes in the market. With its small range of large, Swedish-made vehicles, Volvo has been anchored in virtually one sector of the market.

The company is hoping that the new car, along with the 1.3-litre 66 model, will provide the basis of a wider base which extends into the faster-selling product lines.

Like the larger Volvo cars, the 343 has been designed with a special emphasis on safety, including energy-absorbing crumple zones at front and rear. Automatic transmission, derived from the DAF variations, is standard on all models.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.

The new Volvo 343, which fills a gap between the Volvo 66 and the 240 series, goes on the U.K. market priced at £3,455, including all taxes.



The new Volvo 343

New compacts from Mercedes

BY TERRY DODSWORTH

THE new Mercedes range of compact cars, code-named the W123 and expected to take over the current 200 series within about a year, comes to the British market this week. Prices for the seven models, including three diesels, range from £4,930 to £7,980, an average 9 per cent increase on the current compact range.

The new compact, launched in Germany earlier in the year, retains most of the mechanical components of the old but the bodywork has been completely restyled to a design reminiscent of the more luxurious S class.

The main technical changes are a new front suspension system, a longer wheelbase, and safety steering.

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

Mercedes current emphasis on diesel vehicles, accounting for 47 per cent of production, is the new range by using the

TEXTILE NOTES

Concern on carpets</



The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHÖETERS

RADIO & TELEVISION

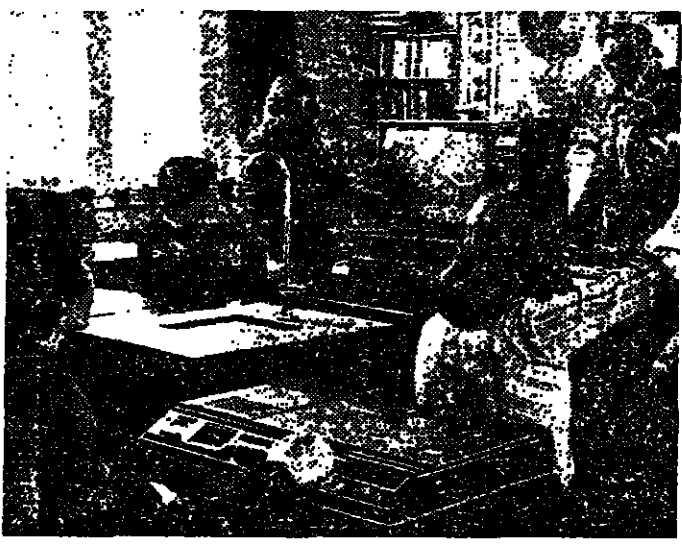
Recording bright and sharp

A RE-DESIGNED version of the Philips VCR videocassette machine is to be launched in October. For the first time since its introduction in 1971, the VCR takes the N1502 on a slightly changed appearance and also incorporates a number of technical improvements and extra facilities.

The automatic clock, by which recordings of broadcast TV programmes can be pre-set, is replaced by a light-emitting diode with digital time display. This can now be set up to three days in advance and has its own standby battery in case of temporary mains failure.

Cassette loading in the N1502 is greatly improved and now follows more closely the binged loading principle of the compact audio cassette. A protective flap on the cassette itself, covering the videotape where it will engage the recorder heads, is automatically opened when the cassette is loaded and closed when it is removed from the machine after use. In practice, this may well lengthen the life of tapes.

Various improvements have been made in the design and function of operational controls, and the power consumption of the VCR has been reduced from 115 watts to 60 watts. Overall bandwidth for colour has been increased from 2.7 MHz to 3.00



MHz and new techniques employed to improve picture sharpness. Accessibility for servicing has also been greatly simplified. Subjectively, picture quality of the N1502 VCR is now as good as any domestic user could wish to see—indeed, it yields pictures far more superior to those which the VCR has been reduced from most view sufferer from broadcast TV produced via badly-adjusted receivers and aerials.

Price of the N1502 will be

about £590 inc. VAT. Philips claims that 28,000 VCRs are now in use throughout the U.K. With rival formats such as the Sony U-Matic and National Panasonic, this indicates that the total U.K. population of videocassette machines is now approaching half the total of 16-mm. projectors. In just five years, this is a significant challenge to the future of 16-mm. film.

JOHN CHITCOCK

COMMUNICATIONS

Radio aids for London Brigade

ONE of the few remaining British-owned mobile radio manufacturers, Burnet Electronics (ER) has scored success at the Home Office with the sale of 500 UHF hand portables for the use of the London Fire Brigade.

Units have been on trial for six months by the Brigade, which will now use them to improve fire-fighting effectiveness by greatly improving communications around the fireground and between fireground and the rest of the brigade.

Two types, BE452 and 454 have been ordered, operating in the 446 to 470 MHz band with wide-band switching in the transmitter section over 6 MHz permitting single or double frequency operation on a single set. The BE452 is a two-channel unit with one channel for single frequency system. It then working and the other for two becomes easier to compare month

frequency. BE454 is a three-channel unit two of which are for single frequency work and the other for double frequency. The latter type is intended for use by supervisory officers to give them an extra channel to talk to other parts of the brigade or headquarters. Burnet is at St. Fidelis Road, Erith, Kent DA8 1AU (Erith 391211).

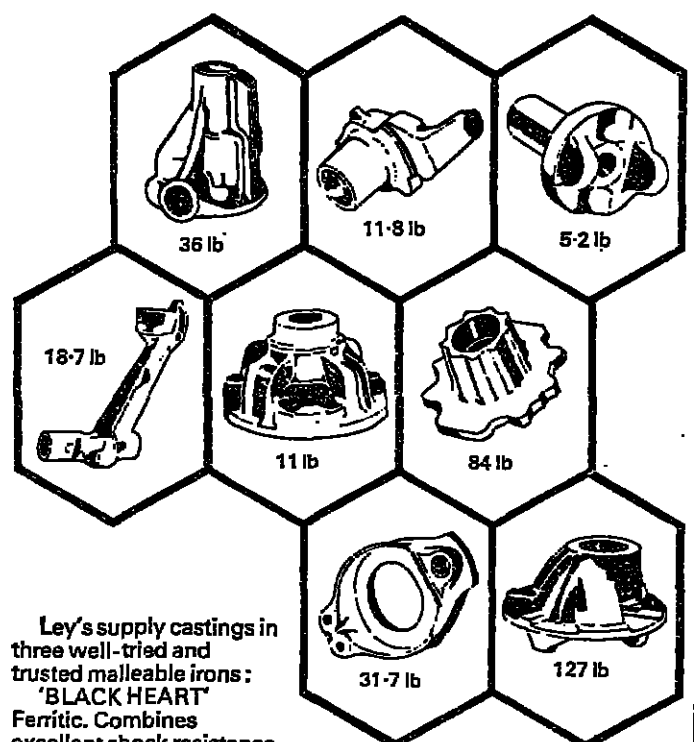
ENERGY

Watch on fuel use

A PROBLEM in assessing the effect of heat saving methods, mainly in reduction of energy loss from the building by improved insulation technique, is that external temperatures cloud the result.

These can be accounted for by single or double frequency operation on a single set. The BE452 is a two-channel unit with one channel for single frequency system. It then working and the other for two becomes easier to compare month

Typical castings from LEY'S



Ley's supply castings in three well-tried and trusted malleable irons: 'BLACK HEART' Ferritic. Combines excellent shock resistance with rapid machining and offers great freedom in design.

'LEPAZ' Pearlitic. Its high tensile strength, 'castability' and free machining make it a valuable and economical material for many parts.

'LEMAX' Heat-treated Pearlitic Malleable Irons. Provide a still higher range of mechanical strength. Can be flame or induction hardened.

Both 'LEPAZ' and 'LEMAX' are widely used in British and U.S. designs as their properties are in line with A.S.T.M. and S.A.E. specifications.

Ley's castings are produced in fully mechanized foundries under laboratory controlled

conditions which ensure consistent quality. Exporters to Europe, U.S.A. etc., with personal technical representation wherever needed. Ask for Ley's illustrated brochure.

LEY'S

Ley's Malleable Castings Company Limited
Derby DE3 8LY England
Telephone: Derby (0332) 45671.
Telex: 37575

Head Office: 100, Victoria Road, Derby, Derbyshire, S11 6JH, England

POLLUTION

Bacterial attack on chemicals

PHENOBACK is a powdered bio-chemical agent which will reduce the harmful effects on the environment of a range of oils and oil products, as well as toxic and non-toxic organic wastes. It is a multi-purpose natural degrading and deodorising agent used with fresh water supplies.

It contains in excess of 2 x 10⁹ micro-organisms per gramme. The mutant bacteria will biologically degrade such common products as benzene, petrol, cyanides, phenols, lubricating oils, naphthalene and amines.

Fospur, Alfreton Industrial Estate, Nottingham Road, Somercotes, Derbs. DE5 4LR. 077-354 4325.

INSTRUMENTS

Recording calorimeter

INTRODUCED into the European market by Cutler-Hammett Europe of Bedford is a unit that will determine, indicate and permanently record the calorific value of any gaseous fuel.

There are two parts: a tank unit in which the calorific value is measured and an electronic recorder unit which translates the measurements into either BU or Megajoules and records them graphically.

Standard measurement is at 30 deg F and saturated, but results can be yielded at other gas standards.

The calorimeter is a self-sufficient instrument requiring no arbitrary settings from other calorimeter ratings. Testing means are provided in the unit to check its accuracy but once properly set up the calibration is maintained for long periods.

Guaranteed accuracy is ± 0.5 per cent of full scale when the company administering the scheme: Environmental Com-munications Associates, 23 F. More from Igranic Works, Station Approach, Hayes, Kent ST16 4JZ 7314.

CONTRACTS AND TENDERS

REPUBLIC OF NIGER SOCIETE NIGERIENNE D'ELECTRICITE (ELECTRICITY BOARD OF NIGER)

Transmission Lines and Switchyards associated with the Anou-Araren project

International invitation for prequalification

Société Nigérienne d'Electricité (NIGEELEC) intends to launch, in the near future, a call for tender, for the construction of high and medium tension, transmission lines and switchyards, associated with the thermal power plant of ANOU-ARAREN, near AGADES. Design and control of work are entrusted to ELECTRICITE DE FRANCE-DIRECTION DES AFFAIRES EXTERIEURES ET DE LA CO-OPERATION (EDF-DAFECO).

The equipment will comprise:

- One 132 kV, 180 km long, transmission line, linking the ANOU-ARAREN site to the AKOKAN Centre;
- One 132 kV switchyard at ANOU-ARAREN;
- One 132/20 kV switchyard at AKOKAN;
- One 20 kV, 45 km long, transmission line, linking the ANOU-ARAREN site to AGADES town.

All civil engineering works, supply of equipment and transportation, erection and start-up should be included in a single offer. To this offer may be added a financial proposal either from the tenderers, or from their country's financial institutions.

The interested companies must apply both to:
SOCIETE NIGERIENNE D'ELECTRICITE
B.P. 202
NIAMEY—Republic of NIGER

and to:
E.D.F.-DAFECO
68, rue du Faubourg Saint-Honoré
75008—PARIS (France)

before October 15th, 1976, giving their references of similar installations supplied, on a turn-key basis, particularly in tropical countries.

In the second half of October 1976, the tender file will be sent to the selected companies and their tender should be received before February 1st, 1977.

COMPUTING

Centre-File expansion

A FLURRY of activity at Centre-File (National Westminster Bank) last week brought news of an acquisition, a tie-up with a group of European service bureaux and strong rumours that a major London broker had decided to abandon his own computer in favour of the Centre-File on-line stockbroker service.

The acquisition is of Bellard Investments, one of the longest-established bureaux in London with a reputation for getting its jobs done reliably and without fuss. It will add about £1m. a year to Centre-File's £45m. turnover and there are few overlaps.

The European connection is with six other groups in Belgium, France, Finland, Germany, the Netherlands and Norway. One of the most noteworthy points in the charter of the association is the commitment to work closely together in markets and on jobs which can better be served by joint operations. The companies will also co-ordinate their long-term strategies.

Centre-File is on 01-638 6161.

Prints fast with micro

TALLY has added a microprocessor to its T1000 needle printer to produce an improvement in performance of two to three times in terms of throughput.

Basic features remain 9 x 7 dot matrix for new 120 characters per second operation, simple interfacing and multi-copy ability. In addition, however, the new machine, T1202, incorporates a microprocessor controlled stepper motor drive which always selects the optimum path to the next print operation. This optimised bi-directional motion completely eliminates the time consuming carriage returns normally needed and speeds up the machine's throughput.

Tally is at 7, Grosvenor Road, Reading RG1 8NQ (Reading 550411).

Cleans data cassettes

ACCORDING to Saggiorn Investments a good deal of unnecessary cost is borne by data cassette users when errors begin to appear on the tape; frequently they discard it, having re-established the data on a fresh cassette.

The company—a new one started by two executives from the Flexidata organisation—is introducing into the U.K. a

Japanese cassette cleaner which will clean the tape with the data on it and remove almost all the errors due to dirt and debris. CI-400 cleans on the forward pass and precision rewinds on the reverse pass. Completion of cleaning which takes about three minutes, is indicated by a lamp. To use, the operator simply switches the power on, inserts the cassette and pushes the "clean" button.

Cleaning is mainly by a sapphire blade which scrapes the contaminants from the tape surface; the debris produced, together with any other particles—including those adhering electrostatically—is then removed by an air sucking action applied to both sides of the tape, plus tissue applied automatically from a small cassette. More from Suite 2, Green Dragon House, High Street, Craydon (01-681 7237).

MATERIALS

Glass fibre cloth unit

A DUTCH company has succeeded in developing a unit with which it is possible to manufacture glass fibre fabric cheaply by the "wet" method.

The unit consists of a number of sections one for the mixing of fibreglass with purified water, one for the formation of the fabric by water separation, a binder section with a binder-cycling system, a drying section and a section in which the finished product is wound into rolls.

The glass fibres are fed in pieces measuring between 10 and 18 mm in length via a pipeline into two mixing vessels and then mixed intensively with suspension with the desired concentration of glass fibres is produced. The suspension is then transported to a collecting tank, in which it is kept in motion. Part of the water is then removed from the suspension, after the fabric has passed onto an open-weave conveyor belt. The surplus water drains through the conveyor and is returned to a water recycle tank.

The damp fabric is passed over a number of rollers rotating in vessels containing the binder. Because the fabric is damp and porous, the binder is absorbed by capillary action in the fabric. From the binder section the fabric passes across a steel gauge belt into the drying section, where the remaining water is evaporated using hot air; the resultant structure of the finished product is such as to ensure good absorption of bitumen, etc.

When it leaves the drying section the fibreglass fabric is formed on a winding machine into rolls containing between

1,500 and 2,500 metres of fabric. This new unit can produce fibreglass fabric with a width of 1 or 2 metres and a weight of between 20 and 200 grams per square metre. The tensile strength is 15 kg/cm² for 50 gr/m² and 20 kg/cm² for 100 gr/m². The entire unit can be operated by two or three persons and can produce up to 3,500 m² of fibreglass fabric per hour per metre machine width. The floor area required, including the space for the storage of raw material, is approximately 1,500 m². Power consumption is 150 kW per metre machine width.

Adco International, Kastanjelaan 48, Arnhem, Holland.

PROCESS

Simplified cooling

REFRIGERATION with no moving equipment other than a fan operates on the basis of ducts, cooling tubes filled with a patented cooling mass.

The tubes can be joined together into sections which are simple to install in refrigerated and freezer vehicles; the size of the sections can be varied to suit the means of transport and the temperature desired.

Two types of refrigeration and freezer unit are manufactured, a roof unit with natural air circulation and a fan unit which works with forced air cooling. In the roof unit the enticent cooling tubes are attached to the roof of the vehicle body and are joined together, the entire unit is connected to lines from a refrigeration compressor located on or beneath the vehicle, the due to failure of the compressor electric motor of which can be during transport.

Vannes B.V., Beeklaan 24, 2215, Post-1660, Hillegom, the night in the cooling tubes Holland.

PLANT & MACHINERY SALES

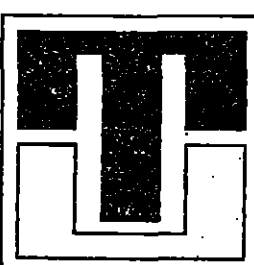
Description	Price	Telephone
1974 TEN STAND roll forming line by Hunter-Douglas. Virtually unused. Capacity 200 mm x 2 mm M.S. strip complete with automatic cut-to-length equipment.	P.O.A.	021-556 0904 Telex 336414
25 TON ROLLING MILL for flattening wire and rolling narrow strip. Complete with edging rolls and recoller.	P.O.A.	021-556 0904 Telex 336414
MODERN USED ROLLING MILLS, wire rod and tube drawing plants—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—pulleys, etc.	P.O.A.	021-556 0904 Telex 336414
1970 MERCEDES-BENZ 100 KW double vacuum annealing plant useful charge area 625 mm dia x 2000 mm loading height output 600 lb per 24 hours.	P.O.A.	021-556 0904 Telex 336414
1974 FULLY AUTOMATED COLD SAW by Noble & Lund with batch control for cutting non-ferrous bar. Max capacity 5" round and square.	P.O.A.	021-556 0904 Telex 336414
1976 CUT-TO-LENGTH LINE max capacity 1000 mm x 3 mm x 7 mm coil, fully overhauled and in excellent condition.	P.O.A.	021-556 0904 Telex 336414
1965 TREBLE DRAFT 'GRAVITY' WIRE DRAWING machine by Farmer Norton, 27" x 29" x 31" diameter drawblocks.	P.O.A.	021-556 0904 Telex 336414
TWO 1 TON CAPACITY ALAX WYATT type 150 kw melting furnaces.	P.O.A.	Telex 336414
CATERPILLAR 14E MOTOR GRADER, complete with new tyres.	£25,500	094-34 4531 Telex 51187
CATERPILLAR 96C WHEEL LOADER, with 3 cu. yd. bucket and new tyres.	£25,500	094-34 4531 Telex 51187
AKRON BATCH OFF MACHINE	£5,750 x works	01-253 6000 Telex 666343

Auction of Machine Tools and Equipment by Norman Levy Assoc. O'Leary Inc. in Leicester, Wed/Thurs. 29/30 Sept. Telephone for Illustrated Brochure: 01-839 5151

MACHINING CENTRE, capacity 5 ft. x 4 ft. x 3 ft. 5 Axis, continuous path. 51 automatic tool changes. 5 tons main table load. Main motor 27 h.p. in almost new condition.	P.O.A.	01-928 3131
VICKERS 200 TON PRESS BED 40" x 36" almost new condition.	P.O.A.	01-928 3131
SCHULER 200 TON HIGH SPEED PRESS BED 48" x 40" 2005 P.M.	P.O.A.	01-928 3131
Double Roll Feed. Excellent condition.	P.O.A.	01-928 3131
RECHER COPY LATHE 18/150. Reconditioned.	P.O.A.	01-928 3131
ANKERWERK 400 TON INJECTION MOULDER. Reconditioned.	P.O.A.	01-928 3131
BLANCHARD No. 11 VERTICAL SPINDLE SURFACE GRINDER 18" dia. Magnetic Chuck, rebuilt.	P.O.A.	01-928 3131
HAUSER JIG GRINDER MODEL 35M well equipped and in excellent condition.	P.O.A.	01-928 3131
HME 70 TON PRESS DCP3 bed 36" x 34" CINCINNATI 315 HORIZONTAL MILL. Table 68" x 15" rebuilt 1600 rpm.	P.O.A.	01-928 3131
WALDRICH-COBURG HYDRAULIC PLANNER, Capacity 160" x 50" 4 Tool. Boxes, almost new condition.	P.O.A.	01-928 3131
FUJI CHUCKING LATHE AUTOMATIC, max swing 19" with hydraulic copying. New. £6,000 below current price.	P.O.A.	01-928 3131
HIGH SPEED CHUCKING LATHE. Kummer K20 Twin spindle with auto cycle.	P.O.A.	01-928 3131
HEAVY DUTY GEAR SHAPER. Maxicut 200 HD Max pitch 3 DP (as new).	P.O.A.	01-928 3131
AUTOMATIC ROTARY POLISHING MACHINE. Caming 6-head. Reconditioned.	P.O.A.	01-928 3131
AUTOMATIC CYCLE INTERNAL GRINDER. Jung model C8. Reconditioned.	P.O.A.	01-928 3131
8 OZZE INJECTION MOULDER. Herbert 1805, rebuilt.	P.O.A.	01-928 3131
6 STATION TURRET DRILL. BURGMASTER 1" capacity in steel with co-ordinate table (as new).	P.O.A.	01-928 3131
LUMSDEN 40" DIA SURFACE GRINDER. Vertical spindle, mag chuck. Reconditioned.	P.O.A.	01-928 3131
100 TON COINING PRESS. HME K100. Knuckle action, rebuilt.	P.O.A.	01-928 3131
250 TON COINING PRESS. Knuckle action by Craig and Donald. Reconditioned.	P.O.A.	01-928 3131
LUMSDEN 60" x 20" SURFACE GRINDER. Vertical spindle, reconditioned.	P.O.A.	£16 826/10
AUTOMATIC DIE SINKER-GHA. 3-dimensional with pickfeed, excellent.	P.O.A.	01-928 3131
JONES & LANGSON CAPSTAN LATHE. heavy duty. Model 3-S air-chuck, loss of tooling, excellent.	P.O.A.	01-928 3131
AUTOMATIC SAWING MACHINE with magazine bar feed. Capacity 40 mm bar, 70 mm cut.	P.O.A.	01-928 3131
INTERNAL GRINDER 60" DA SWING, 14" deep.	P.O.A.	01-928 3131
60" DIA GAP BED LATHE. 32" overbed, 54" between centres.	P.O.A.	01-928 3131

Promptly delivered, fast-built, low-cost, factory-made buildings—anywhere.

HOUSING • CONSTRUCTION CAMPS • CLINICS • OFFICES • SCHOOLS

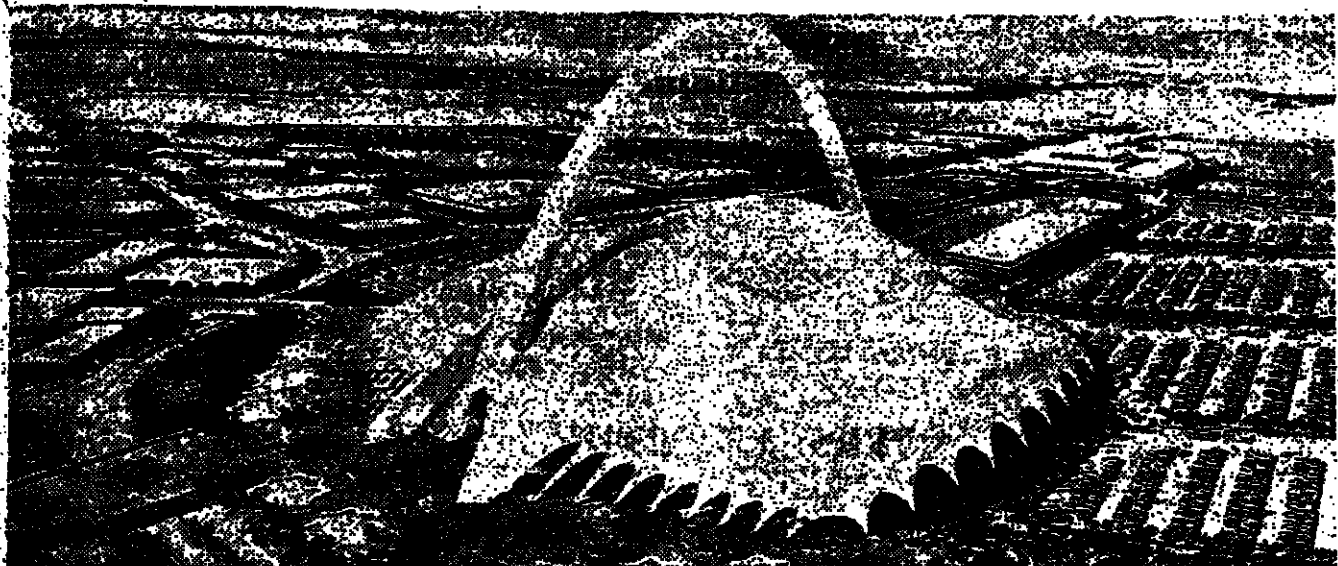


TERRAPIN

Phone: Milton Keynes (0908) 74971 Telex: 82468

010-150

Building and Civil Engineering



Riyadh stadium project

EVER, in Britain or elsewhere, sets a share of the £200m. contracts which may be before the end of the year.

Within about a fortnight, the full documents will be in Riyadh for the consideration of Prince Faisal, President of the Saudi Arabian Youth Welfare General Presidency.

The next step will be the calling of international tenders for the various stages of the scheme, which requires a total building area of 2.2m. square feet, with 770,000 square feet of seating for 80,000 people.

Key to the design is the arch with its world record height of 716 feet and span of 1,238 feet, but a remarkable feature also will be the immense cable net roof covering 1,388,000 square feet, the largest ever attempted anywhere.

Road cracks prevented

USE OF a layer of glass-fibre reinforced cement has been shown over necessarily lengthy trials in laboratory testing since 1967, and trunk and principal roads since 1971 to have remarkable effects in that cracks have been bridged and sealed and car vibration vibrations drastically reduced which means a longer life for the subgrade and materials used in construction.

This is a U.K. invention which should have world-wide effects. April 1976, results of sampling, coring and deflection testing have given rise to much optimism as there are no cracks in the GRC section as have occurred in the sections without GRC treatment. Carriageway deflections under various dynamic loads have shown a mean reduction of 85 per cent.

One trial on a trunk road has produced results over the last three years which have proved sufficiently encouraging to warrant the limited use under control of the GRC technique at selected sites elsewhere on trunk roads.

Educational plans go ahead

A £244m. building programme for higher and further education major projects to start in 1977, 78 has been authorised by the Secretary of State for Education and Science. Of this total £4m. has been allocated to the University Grants Committee who will settle individual starts programmes with the universities.

The amounts authorised for the non-university sector are in effect limits up to which local authorities can start new building projects during the period specified. They are not grants, but local authority spending, including that on non-university building, is substantially assisted by central government through the Rate Support Grant.

The situation is ripe for local authorities to seek advice on repairing bases, joints and preparing reinstatements with 10-12 mm GRC which prevents water ingress and disintegration of the carriageway base structure.

DoE orders new centre

AMEY Roadstone Construction has been awarded a contract valued at £811,208 by the Department of the Environment for the construction of a skill centre at South Dorcan, Swindon.

Work, which has just commenced, will take about 13 months to complete. The contract involves the provision of an administrative building, including offices and canteen area, with an approximate area of 1,400 square metres, a single storey steel framed training building with an area of approximately 3,600 square metres, together with external stores, boiler house, radio classroom, foul and surface water drainage, concrete hard-standings and paths.

Big bridge over the Medway

JOHN HOWARD, civil engineering contractors, of Chatham, have been awarded a £2m. contract to build a road bridge over the River Medway at Maidstone. Awarded by the highways and transportation department of the Kent County Council it involves the construction of a single 81m. span pre-cast and in-situ concrete post-tensioned portal arch bridge, two reinforced concrete sub-ways, retaining walls, carriageway, footways, paved and landscaped areas.

Work is to start at the end of October and on completion in two years' time, the scheme will form a gyratory system at the junction of the A20 and the A229. The bridge is located in a very congested area of Maidstone and the maintenance of traffic flows is of major importance.

TAC in big block plant expansion

MORE THAN £34m. is being invested in a plant to make gas

CRENDON STRUCTURES

for High speed Low cost Factory, Warehouse and Office Building

concrete building blocks at Alfreton, Derbyshire, by TAC Construction Materials (Turner and Newall). The company plans envisage the start of construction work on a six-acre site early in the New Year and the plant should be completed in time to go into production in 1978.

Warrington £4½m. plan for housing

FPA FINNEGAN has won a £4.5m. contract by the Sutton Housing Trust to build 486 frameform dwellings at Warrington.

The contract includes the provision of roads, sewers and site works and the projects will be completed in four phases. Final completion is scheduled for early 1979.

Long Kong housing

LONG KONG Land Company announced a \$185,000m. development on the island of Long Kong. The development will be for a new, high-rise development on Pokfulam area on the eastern peninsula of Hong Kong.

The supplementary agreement covers the installation of three major additions to the cement works at a cost of just over \$7m. They include an electrostatic filter, to be installed between the kiln and chimney, to eliminate as far as possible the dust going from the kiln, through the chimney into the local atmosphere; two 15,000 tonne clinker silos with dedusting equipment and a 33/8.6 kV substation.

Dubai national cement factory, to be the biggest of its kind in the Gulf, is currently being built by Costain. The contract is to design, construct, equip and commission a cement plant with a rated output of 1500 tonnes per 24 hours. Total cost will be over £33m.

Stocks Bros. Buildings, of Garforth, Leeds, who specialise in single storey precast concrete panel constructions, took the £90,000 order for the pilot show-house scheme from a group of Saudi Arabian and Lebanese businessmen with extensive property and banking interests, against Swiss, French, German and finally Italian competition.

Housing in Saudi Arabia

AUSTIN-HALL Building Systems (Pentons Group) has been awarded a £380,000 contract for the supply of housing and hotel accommodation in Saudi Arabia, bringing the total of overseas orders received by the Company in the last three months to £11m.

The latest order has been placed by the Olayan Group through their U.K. associate, Comptrol. Olayan is itself a major Saudi Arabian construction group, and in addition acts as agent for Austin-Hall, Huddersfield, throughout the territory.

Bovis move in Arabia

A NEW specialist company has been formed by Bovis Civil Engineering to spearhead a drive for more overseas contracts. The company is Bovis International (Civil Engineering), with registered offices at Westbury, Wiltshire — home of the parent company.

Chairman of the new company is Pat Hall and the managing director is David Edwards, who has been a director of Bovis Civil Engineering for many years. A wholly-owned subsidiary of Bovis Civil Engineering, the

More work for Costain in Dubai

PLEMENTARY agreements additional works to the Dubai national cement factory have been signed by the Ruler of Dubai and Michael Murphy, of Bovis International.

IN BRIEF

Corral Construction has contracts in London, Birmingham, Glasgow, together worth £2m. Contracts worth £100,000 come from Kensington, Chelsea, Wandsworth and Isle of Dogs.

from a new school for the Northampton Roman Catholic Diocese at Bedford worth £1.25m. £2m. Contracts worth £100,000 come from Kensington, Chelsea, Wandsworth and Isle of Dogs.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.

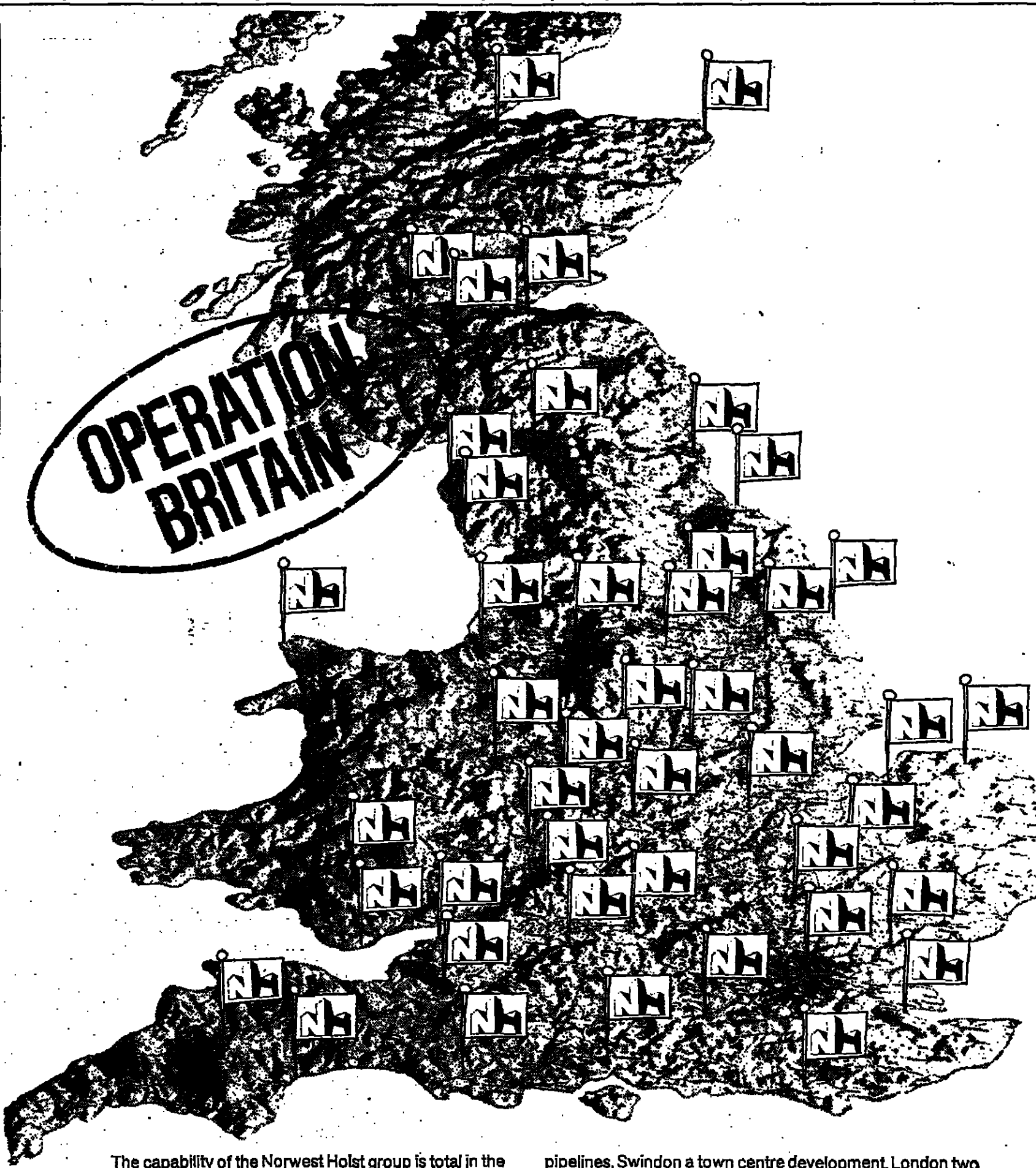
erected in sections of three or four units per designated area. Costain has been awarded a £1m. contract to build a supermarket in Ramsgate for Waitrose. The two-storey building will be of reinforced concrete construction with brick cladding giving a shopping area of 1385m² at ground level with 1385m² storage above.



We arrive a little flat! — but we soon Build Up.



We arrive a little flat! — but we soon Build Up.



The capability of the Norwest Holst group is total in the extent of its activities for the civil engineering and construction industries — and also in geographical coverage. It isn't possible to show on the map all the projects now being undertaken in Britain but there are enough flags to give some idea of our capability. Whether shown or not, and regardless of size, all projects have the same benefit of our personal attention and service.

As a very brief selection of what we do, the project at Okehampton is earth moving, Carlisle a gas pipeline, Glendevon a water treatment works and reservoir, Anglesey storage tank foundations and pipelines, Swindon a town centre development, London two major refurbishment contracts and Sittingbourne a multi-flue chimney and boiler house.

Of course we don't stop at the Channel. Anywhere outside the UK we are able to provide our management expertise and technical skills through Norwest Holst International and our incorporated overseas companies.

Whatever the job or wherever it is, we can undertake the whole project from soil testing to completion. The sustained flow of new orders reflects confidence in both our management policies and our capability in implementing them.

E.A. Brian, Chief Executive, Norwest Holst Group.

Norwest Holst total capability

Norwest Holst Limited 35 Chesham Place, London SW1X 8HB. Telephone: 01-235 9951 Telex: 917047.

LABOUR NEWS

Gormley in bid for new pit-based output scheme

BY DAVID CHURCHILL, LABOUR STAFF

MR. JOE GORMLEY, the miners' president is paving the way for a new attempt to introduce a pit-based productivity scheme similar to the one rejected in a national ballot two years ago. This move, announced in the latest issue of the National Union of Mineworkers Journal, is almost certain to lead to conflict with the union's Left-wing who see local productivity schemes as "divisive."

It comes as a new row has broken out between the different political wings of the union at a week-end NUM delegate meeting on the eve of Labour Party Conference at Blackpool. Moderates on the delegation tried to oust Mr. Biff McGaher, the union's vice-president and a member of the Communist Party, from leading the delegates in the absence of Mr. Gormley who is in the U.S. But the bid was rejected at a closed meeting without coming to a vote.

Mr. Gormley, in an article in the union's journal, wants a return to free collective bargaining next year to go hand-in-hand with measures that will increase productivity and wages in the mining industry.

He states that the existing production bonus which is based on national coal output has had a "derisory" effect on wages and done little to help recruit workers to the pit-face and achieve overall higher productivity.

Mr. Gormley would like to see targets at each pit to determine the targets and norms for that pit to be used as basis for a local productivity scheme.

Output above that laid down as the norm would earn a bonus to all the colliery workers based on a national scale.

Similar pit-based schemes operated in almost every other main coal industry in the world, Mr. Gormley claims, which enabled these competitors to achieve higher production levels than the U.K.

A special sub-committee of the union's executive has been set up to consider the implications

of the failure of the existing production bonus scheme.

Proposals for a similar scheme put forward two years ago by the National Coal Board and supported by the union's moderates were defeated by a majority of three to two in a pit-head ballot.

The miners also intend to make it clear at this week's Labour Party conference that they would be seeking a number of fringe benefits, such as early retirement and extra pay for being under special laws while on colliery premises.

The NUM plans to meet the Prime Minister and other senior Government Ministers after the conference to press their claim.

The review says that EEC entry has lost employment opportunities largely because of the size of Britain's deficit in trade in manufactured goods with other Community countries.

"It should be clear by now that exposure to EEC competition has not been beneficial to our manufacturing industry; nor has it provided any 'jobs for the boys'."

On investment, the review says: "The amount directly invested overseas by U.K. private industry is little noticed but it

Joining EEC has cost up to 1m. jobs, says union

BY OUR LABOUR STAFF

MEMBERSHIP of the Common Market has cost Britain 1m. potential jobs, says the Association of Scientific, Technical and Managerial Staffs in a special edition of its quarterly economic review, published on the eve of the Labour Party conference.

A further 700,000 potential jobs have been lost through U.K. private sector investment overseas, the union claims.

The review says that EEC entry has lost employment opportunities largely because of the size of Britain's deficit in trade in manufactured goods with other Community countries.

"It should be clear by now that exposure to EEC competition has not been beneficial to our manufacturing industry; nor has it provided any 'jobs for the boys'."

On investment, the review says: "The amount directly invested overseas by U.K. private industry is little noticed but it

represents a very substantial loss of jobs in the U.K."

Had the money invested overseas by the U.K. private sector been invested in Britain a large number of jobs could have been created. On the basis that it takes about £1,000 worth of investment to produce one job, then the loss of potential jobs from this cause since 1973 has been over 737,000.

In a separate report, the union estimates that a further 84,000 jobs will be lost as a direct result of the deficit of trade with the Common Market between July 1976 and June 1977.

Calling for the introduction of import management immediately, it says that Japan was not the only problem in trade. In the first seven months of this year 35 per cent of domestic car sales were accounted for by imports. Of these, 64 per cent were from the EEC and 25.7 per cent from Japan.

Meeting to-day may end drivers' strike

By Peter Cartwright

A CRUCIAL meeting of 400 Coventry car delivery drivers to-day will determine how long thousands of motor industry workers can be kept in their jobs, when they return after a week's holiday.

The drivers' strike is causing Triumph, Jaguar and Chrysler factories to run out of parking space for new cars. Lay offs at Triumph are imminent unless there is a resumption.

The strike, which began five weeks ago with 80 Silcock and Colling drivers walking out over the sacking of 17 colleagues. Last week looked as though it would be supported by the remainder of the 800 Silcock drivers at a dozen depots until a 10-hour meeting with officials of the Advisory Conciliation and Arbitration Service found a peace formula.

This involves re-instatement of the 17 men and work sharing. If accepted by to-day's meeting an immediate resumption is expected.

Teachers to see Williams about manpower cuts

BY OUR LABOUR STAFF

LEADERS of the National Union of Teachers will meet Mrs. Shirley Williams, Education Secretary, early in November to protest at the cuts in teaching manpower at the same time as the Government's job creation scheme was trying to employ teachers.

Mr. Fred Jarvis, general secretary of the NUT, said after the union's executive meeting at the week-end that some £200,000 would be spent in South Wales creating jobs with remedial children for unemployed teachers.

"You can get money from the Government from one hand but not the other. It is ironic that money should be available to

employ teachers on these schemes but not in their proper jobs."

The NUT executive also decided to endorse sanctions by its members in the Stockport area. They are protesting at over-size classes and poor working conditions. Teachers will be asked not to cover for absent colleagues or to teach a class with more than 35 pupils.

But the executive decided not to give financial help to the six teachers at the William Tyndale school in North London who face disciplinary hearings later this month for taking strike action over teaching standards.

THE FIRST MEN ON THE MOON HAVE LANDED AT PEMEC.

The official United States Exhibition at PEMEC '76 presents a wide variety of 'Aids to Industry' which have been developed and are being produced by twenty-four American companies.

Each of these has its own contribution to make to the general improvement of plant efficiency, operation and productivity.

From September 27th to October 1st, Hall 2, National Exhibition Centre, Birmingham.

Phone for tickets and catalogue. US Exhibition office 021-780 3839 or 3830.

USA UNITED STATES EXHIBITION PEMEC '76

Already this year, over
3,000
companies have enquired
about Industrial Development
in Cumbernauld.

So what do we have that's
so different from
every other new town?

Post this coupon to find out.

Or see us at STAND 611 P.E.M.E.C., National Exhibition Centre,
Birmingham, 27th September till 1st October.

Chief Executive,
Brigadier Colin Cowan,
Cumbernauld
Development Corporation,
Cumbernauld House,
Cumbernauld, Scotland G67 3JH
Tel. Cumbernauld 21155 Telex. 77463

Dear Brigadier Cowan,
Please tell me what is so special about Industrial Development opportunities in Cumbernauld.

Name _____

Position _____

Company _____

Address _____

Tel. _____

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	BSI/Dec. Council: "Living Standards" (cl. Oct. 9)	Design Centre, S.W.1
Current	Int. Machine Tool Exhibition (cl. Oct. 2)	Nat. Exbn. Centre, Bham
Current	Commercial Motor Show (cl. Oct. 2)	Earls Court
To-day	Autumn Floorcoverings Fair (cl. Sept. 30)	Metropole Centre, Brighton
To-day	Int. Plant Engineering and Maintenance (cl. Oct. 1)	Nat. Exbn. Centre, Bham
To-day	U.S. Packaging Equipment Systems (cl. Oct. 1)	U.S. Trade Centre, W.1
Sept. 28-29	EIA Exhibition	Bournemouth
Sept. 28-30	Mailing Machinery Exhibition	Bournemouth
Sept. 28-Oct. 2	Subcontracting Industries Exhibition	Bournemouth
Oct. 3-8	London International Footwear Fair	Nat. Exbn. Centre, Bham
Oct. 3-23	International Exhibition and Marketing Seminar	Olympia
Oct. 4-7	World Offshore Exhibition	World Trade Centre, E.1
Oct. 5-8	SPECISBUILD Exposition	Olympia
Oct. 12-14	U.K. Automatic Testing Exhibition	Olympia
Oct. 14-30	Birmingham Ideal Home Exhibition	Seymour Hall, W.1
Oct. 17-20	International Garden and Leisure Exbn.	Nat. Exbn. Centre, Bham
Oct. 18-20	Electronics Exhibition	Nat. Exbn. Centre, Bham
Oct. 18-23	Kennington Antiques Fair	U.S. Trade Centre, W.1
Oct. 19-23	Furnaces, Heat Treatment & Fuel Economy Exbn.	Kennington Town Hall
Oct. 20-30	International Motor Show	Nat. Exbn. Centre, Bham
Oct. 21-22	Management Services and Equip. Exbn.	Earls Court
Oct. 23-31	International Ski Show	Harrington
Oct. 26-29	London Fashion Exhibition	Olympia
Oct. 27-30	British Intnl. Fashion Fair	Olympia
Oct. 31-Nov. 4	Int. Plant and Maint. Exbn. and Cong.	Nat. Exbn. Centre, Bham
Oct. 31-Nov. 4	Int. Domestic Contract Textiles Exbn.	Nat. Exbn. Centre, Bham

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	Video 76 (cl. Sept. 29)	Cannes
Current	SICOB: Office Equipment Exhibition (cl. Oct. 1)	Paris
To-day	Ocean Development Exhibition (cl. Oct. 1)	Tokyo
Oct. 1-21	International Trade Fair	Baghdad
Oct. 2-5	International Furniture Exhibition	Lyons
Oct. 3-8	Gastech LNG/LPG Technology Equip. Ex. and Cong.	New York
Oct. 7-17	International Motor Exhibition	Paris
Oct. 15-24	International Electrical Fair	Copenhagen
Oct. 15-25	International Trade Fair	Bucharest
Oct. 15-25	International Boat Show	Genoa
Oct. 16-24	German International Boat Show	Hamburg
Oct. 17-25	Intnl. Hotel and Catering Equip. Exbn.	Paris
Oct. 18-23	International Electronics Exhibition	Budapest
Oct. 18-27	Fourth International Trade Fair	Tehran
Oct. 21-27	International Technical Fair	Stockholm
Oct. 27-30	Fish Expo 76	Boston

BUSINESS AND MANAGEMENT CONFERENCES

Date	Title	Venue
Sept. 28	IBA: Exec. Remuneration and Fringe Benefits	Royal Garden Hotel, W.8
Sept. 28-30	Method Dev.: Work Study Appreciation	10, Woodhouse Sq., Leeds
Sept. 28-Oct. 1	Inst. of Petroleum annual conference	Eastbourne
Sept. 30	Inst. of Work Study: EEC Transport Legislation	Royal Gdn. Hotel, W.8
Sept. 30-Oct. 1	Financial Times: The Banker, Investment House	Manila
Sept. 30-Oct. 1	Assoc. of the Philippines: Investors Chronical and	
Sept. 30-Oct. 1	Malaysian Airlines System: Business in the	
Sept. 30-Oct. 2	Pacific Basin	
Oct. 2-8	NCP: International Cash Management	Oslo
Oct. 2-8	W. D. Scott: Effective Office Management	Swindon
Oct. 5-6	Int'l. Visual Aid Workers and the Law	Southgate Tech. Coll., N.14
Oct. 5-6	Euro. Study Conference: The Finance Act 1976	Portman Hotel, W.1
Oct. 7	Arabian Mark: Selling to the Magreb and Libya	Cafe Royal, W.1
Oct. 7	British Printing Fed.: Print Marketing at Work	Royal Lancaster Hotel, W.2
Oct. 8	Over: Water and the Industrial User	Inn on the Park, W.1
Oct. 8	ESC: EEC Trade Mark Draft Regulation	Royal Garden Hotel, W.8
Oct. 8	BAGIE: Training for Vital Skills	London Hilton, W.1
Oct. 11-Nov. 5	H. Mitchell: Work Study Course	Boston, North
Oct. 12	Henley Centre: Cost and Price Inflation to 1981	Carlton Tower Hotel, W.1
Oct. 12-13	Seatrade: In Search of Safety seminar	Europa Hotel, W.1
Oct. 12-14	Financial Times: Qantas, Australian Financial	Wentworth Hotel, Sydney
Oct. 14	Review: Australia in the World Economy	
Oct. 18	Economic Models: Auto Industry Forecasts	EM House, S.W.1
Oct. 18	Inbucor: Relocation or Dislocation	Dorchester Hotel, W.1
Oct. 18-22	P-E Cons. Group: Maintenance Management	Training Centre, Egham
Oct. 18-22	Keppner-Dege: Decision Making for Senior Man.	Royal Bath Htl., Bournemouth
Oct. 19-20	Financial Times: Ministry of Works, Power and	Bahrain
Oct. 19-20	Water, Bahrain: Gulf Air: World Construction-	
Oct. 21	Prospects in the Arab Countries	
Oct. 21	Interface: Man. Finance for lay Execs.	Post House, Reading
Oct. 21-22	Design Eng.: Designing for World Markets	Europa Hotel, W.1
Oct. 25-26	Assoc. Bus. Prog.: Property Taxation	Tara Hotel, W.2
Oct. 25-27	Assn. Cert. Agents: European Aspects	Clifton-Ford Hotel, W.1
Oct. 25-27	MCE: Labour Relations in Europe	Brussels
Oct. 25-28	Roffey Park: Managing Industrial Rel.	Horsham, Sussex
Oct. 26-28	OFB (U.K.): Paying People Abroad	Connaught Rooms, W.C.2
Oct. 28	ABP: Remuneration and Benefits	Abbey Road, Glasgow
Oct. 28	WTL: New Approach to Exporting	World Trade Centre, E.1
Oct. 28	Imp. Coll.: Computers Behind the Screen	Exhibition Road, S.W.1

THE FINANCIAL TIMES

INTERNATIONAL SURVEY OF EXPENSES FOR THE TRAVELLING BUSINESSMAN

This new survey, produced jointly by the Financial Times and Industrial Market Research Ltd., provides a detailed study of the expenses likely to be incurred by travelling businessmen around the world. In all, 61 major business centres in 56 countries are covered.

Tables for each centre give the average rate for a hotel room and the costs of meals, snacks, drinks and other incidentals. Restaurant and night-club charges are also dealt with in detail.

Consulting a doctor, communications, transport, entertainment, publications, cigarettes — even the laundering of a shirt — are all costed in the local currency.

And, to complete the picture, there is advice for the business traveller with a rundown on local customs affecting business and social activities and a list of public holidays for each area.

The International Survey of Expenses for the Travelling Businessman is an essential work of reference for all advisers on business travel and those who travel abroad on business or authorise the expenses of world-travelling businessmen.

PRICE £30

To: Department ISETE, Financial Times, Bracken House, Cannon Street, London EC4A 3BY

Please send me _____ copy/copies of the Financial Times International Survey of Expenses for the Travelling Businessman at £30 per copy. My remittance is enclosed.

Name _____

Company _____

Address _____

The Financial Times Ltd., Registered Office: Bracken House, 10, Cannon Street, London, EC4A 3BY. Registered in England No. 27398

The Executive's and Office World

EDITED BY JOHN ELLIOTT

EMPLOYEE COSTS

BY DRYDEN GILLING-SMITH

An area of rapid inflation

THE INDIRECT costs of employing people — whether they be social security costs, company pension costs, the cost of getting rid of people you no longer want, or even worse, the cost of keeping people you are unable to get rid of — add up to one of the most rapidly expanding cost areas in any business which depends substantially on people.

These costs are often the most difficult to forecast and to control. For example, employers' social security contributions were last year the subject of a detailed memorandum by the Government Actuary, and from his employers might have just long-term forecasts of direct social security contributions (that is leaving aside those coming out of general taxation) of between 16½ per cent and 18½ per cent of payroll with part of this paid by the employee.

Within a year any such long-range forecasts of employers' costs have had to be increased by nearly 30 per cent. The increase of approximately 1 per cent of payroll added at Easter this year and the 2 per cent to be added next April together represent an increase of approximately 30 per cent on what amounts to an employer's payroll tax. This is a particularly heavy burden on labour-intensive companies during periods of low profits or losses. These increases are additional to the burden that many employers will have to bear as a result of Mrs. Castle's Social Security Pensions Act when it comes into operation in April 1978.

Case law

The second of these major indirect cost areas is the contingent cost of getting rid of people. The Employment Protection Act, and the case law to which it is giving rise, has added substantially to most employers' prospective costs although as yet I have seen few attempts to quantify such costs or to set up reserves against current profits in order to meet such costs.

The third major cost area is company pensions. Contrary to popular belief (and to the belief expressed in many readers' letters on the subject of pensions) most large U.K. com-

panies are increasing pensions each year in order to offset the effects of inflation just as the Government is increasing public service pensions.

Apart from inflation-proofing, the cost of providing basic company pensions has increased. This is because the rate of return on the capital represented by pension fund investments has been falling in real terms. One international oil company which currently pays 21 per cent of its payroll towards company pensions was gravely concerned on examining the accounts of a leading U.K. bank to find that its pension

The fourth major factor in employment costs is that of other employee benefits. Increasingly benefits other than salary or wages are found to be more cost effective as a means of attracting, retaining and motivating people in high tax economies.

Greater employee awareness of the advantages of these other methods of remuneration is rapidly increasing the demand for such benefits. The attempts this year by the government to stop tax relief on employee benefits backfired severely, and it is useful to forecast the effect

of payroll. When one is examining company accounts one usually has to search fairly hard even to get the details on the number of employees and total payroll.

As an investor I find this kind of information of far greater value than it is usually accorded in assessing a company's long-term chances of earning a worthwhile return on my capital. The smaller the number of people in relation to payroll, the lower the social security costs in relation to payroll and the larger the sums spent on employee benefits lying entirely within the employer's discretion, the happier I would be about the future people costs of my investment.

Employers' social security costs are a major burden for an exporter who may be competing with countries with lower labour and social security burdens. An increase in VAT, which is not levied on exports, is the sensible way in which to collect social security revenue. Collecting revenue through VAT, as opposed to the use of increased payroll taxes, would be a sensible way to help labour-intensive groups such as British Leyland.

But how can employers expect to put the case for changes in tax structure and employment legislation to Government, either individually or through the CBI, if it is not general practice to build up each company and to subject it to sufficient scrutiny at top level in each company as and when such data becomes available? This is an area where employers can help themselves.

Dryden Gilling-Smith is a consultant with Employment Benefit Services.

Companies, and particularly those that are labour-intensive, are having to face the fact that the indirect costs of employing people represent one of their most rapidly expanding, but least controllable, areas of expenditure.

costs approximated to 42 per cent of relevant payroll for what looked like roughly comparable basic provisions.

John Martin, a leading U.K. actuary stated at last year's FT Pensions Conference that the cost of providing a pension of conventional 60ths etc. for a man who enters service at 25 during periods of low profits or losses. These increases are additional to the burden that many employers will have to bear as a result of Mrs. Castle's Social Security Pensions Act when it comes into operation in April 1978.

In the past most actuaries have worked on a 2 per cent real rate of return but concern is now being felt in many quarters that the power of organised labour to pre-empt a larger slice of the national cake is now so great that it may be necessary to assume a lower rate of return on capital in future. This is the basis of the argument against funding of Mr. Raymond Nottage, the director general of public administration, but whatever the theoretical arguments, employers should give serious consideration to the possibility of a substantial increase in the cost of meeting their present pension commitments and the factors that can lead to this.

of a range of possible increases in social security costs once they have worked their way right through the system. Then, when an increase is announced, the effects can be assessed straightaway.

If an attempt is made to build up a meaningful picture within a company of all these costs and contingent costs they should have a considerable value to shareholders and investors. One would like to see a much fuller analysis of the financial implications of present and future employment policies in the annual report and accounts of a company, including a breakdown of expenditure on the different major items, expressed as a percentage

Keeping up with disclosure

BY MICHAEL LAFFERTY

IF IT is more than a year since your company reviewed its policy on information disclosure, that policy could well be out of date and may not conform with the law, according to Arthur Young Management Services in a booklet just published.

Companies are now faced not only with the disclosure requirements of company law, but also those of the Stock Exchange Listing Agreement and the many accounting standards of the accounting profession. And many more developments are planned on these fronts.

On top of this, there are the lesser known provisions of the 1975 Industry Act and the Employment Protection Act 1975, under which a code of practice for good industrial relations practice on disclosure is currently being developed. Finally, there is a whole series of draft EEC directives

which can be expected to become law in the next five years. Arthur Young's theme is that every company should have an information policy which, in the case of employees, should be linked to its industrial relations policy.

"Although industry provides the lifeblood for the British economy and hence for society itself, that message has not been getting across to employees or the public," the firm believes. "This is partly because business has been too secretive and has not told its story in a comprehensible or credible fashion."

AYMS believes that more disclosure is coming whether companies like it or not. "Managers should recognise this fact of life and take the opportunity to make a virtue of necessity by developing a positive and progressive information policy rather than a purely reactive one," it declares.

"Sharing the facts: Current Law and Practice on Disclosure of Information," Arthur Young Management Services, Moor House, London, Wall, London, not told its story in a comprehensive or credible fashion."

On top of this, there are the lesser known provisions of the 1975 Industry Act and the Employment Protection Act 1975, under which a code of practice for good industrial relations practice on disclosure is currently being developed. Finally, there is a whole series of draft EEC directives

which can be expected to become law in the next five years. Arthur Young's theme is that every company should have an information policy which, in the case of employees, should be linked to its industrial relations policy.

"Although industry provides the lifeblood for the British economy and hence for society itself, that message has not been getting across to employees or the public," the firm believes. "This is partly because business has been too secretive and has not told its story in a comprehensive or credible fashion."

AYMS believes that more disclosure is coming whether companies like it or not. "Managers should recognise this fact of life and take the opportunity to make a virtue of necessity by developing a positive and progressive information policy rather than a purely reactive one," it declares.

"Sharing the facts: Current Law and Practice on Disclosure of Information," Arthur Young Management Services, Moor House, London, Wall, London, not told its story in a comprehensive or credible fashion."

On top of this, there are the lesser known provisions of the 1975 Industry Act and the Employment Protection Act 1975, under which a code of practice for good industrial relations practice on disclosure is currently being developed. Finally, there is a whole series of draft EEC directives

which can be expected to become law in the next five years. Arthur Young's theme is that every company should have an information policy which, in the case of employees, should be linked to its industrial relations policy.

"Although industry provides the lifeblood for the British economy and hence for society itself, that message has not been getting across to employees or the public," the firm believes. "This is partly because business has been too secretive and has not told its story in a comprehensive or credible fashion."

Benefits in Europe

BY NICHOLAS LESLIE

IN MOST European countries which exist, but rather a look with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Thus "one must first concentrate... on the areas of similarity rather than the areas of difference so that one is better able to distinguish between those differences which are material and those which have only an incidental character."

The book is divided into two sections, with the first looking at the evolution of social security, the reciprocal arrangements in the EEC and the current practice within Europe. There are also explanations of the financing of occupational benefits.

In the second part there are 16 chapters, each devoted to a different country, and with a constant format used throughout the section. For each country a summary of benefits

contribution is given, together with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Thus "one must first concentrate... on the areas of similarity rather than the areas of difference so that one is better able to distinguish between those differences which are material and those which have only an incidental character."

The book is divided into two sections, with the first looking at the evolution of social security, the reciprocal arrangements in the EEC and the current practice within Europe. There are also explanations of the financing of occupational benefits.

In the second part there are 16 chapters, each devoted to a different country, and with a constant format used throughout the section. For each country a summary of benefits

contribution is given, together with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Thus "one must first concentrate... on the areas of similarity rather than the areas of difference so that one is better able to distinguish between those differences which are material and those which have only an incidental character."

The book is divided into two sections, with the first looking at the evolution of social security, the reciprocal arrangements in the EEC and the current practice within Europe. There are also explanations of the financing of occupational benefits.

In the second part there are 16 chapters, each devoted to a different country, and with a constant format used throughout the section. For each country a summary of benefits

contribution is given, together with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Thus "one must first concentrate... on the areas of similarity rather than the areas of difference so that one is better able to distinguish between those differences which are material and those which have only an incidental character."

The book is divided into two sections, with the first looking at the evolution of social security, the reciprocal arrangements in the EEC and the current practice within Europe. There are also explanations of the financing of occupational benefits.

In the second part there are 16 chapters, each devoted to a different country, and with a constant format used throughout the section. For each country a summary of benefits

contribution is given, together with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Thus "one must first concentrate... on the areas of similarity rather than the areas of difference so that one is better able to distinguish between those differences which are material and those which have only an incidental character."

The book is divided into two sections, with the first looking at the evolution of social security, the reciprocal arrangements in the EEC and the current practice within Europe. There are also explanations of the financing of occupational benefits.

In the second part there are 16 chapters, each devoted to a different country, and with a constant format used throughout the section. For each country a summary of benefits

contribution is given, together with the general provisions of each country's social security system. Retirement pensions and calculation of entitlement are explained. Other points are: disability pension, survivors' benefits, industrial injuries, health insurance, unemployment benefits, occupational retirement pensions, and tax treatment.

The work updates the first such book by the author produced last year, but it has also been expanded to show why principle whereby security is provided.

Exporters know their languages

COMPANIES which are major exporters of goods from the U.K. do not have any difficulty in dealing with foreign companies and markets in their own language, according to a survey of companies which won this year's Queen's Awards for export achievement.

Most companies are able to do business in their customers' languages, says the survey, and only a few claim that it is never necessary to speak a foreign language to capture export orders.

The survey, by the Berlitz School of Languages, covered 50 winners of the 1976 Queen's Award and sought views on the importance of foreign languages in doing export business.

The majority, 78 per cent, use one or more languages, the most popular being French, German, Spanish and Italian, and only 12 per cent said that they never found it necessary to speak in the language of their customers. Most of these rely on their overseas agents.

When recruiting export staff, 80 per cent now ask for candidates with knowledge of foreign languages but only 23 per cent award extra pay for this qualification.

Nearly half the companies operate language training programmes in company time and at company expense. And those firms where wives or husbands accompany employees abroad, most provide facilities for spouses to learn the new customer's own language.

Mr. Roland Morgan, general manager of Berlitz, says of the results: "The response from the Queen's Award winners suggests that other exporters will need to change their attitudes to languages if they are to do better against increasingly severe competition from other countries. Merely offering a competitive price, because of the fall in the value of sterling, is not always enough to win orders. But having close contact with, and being able to understand a customer, as well as being understood will always give a salesman an important advantage."

The survey, by the Berlitz School of Languages, covered 50 winners of the 1976 Queen's Award and sought views on the importance of foreign languages in doing export business.

The majority, 78 per cent, use one or more languages, the most popular being French, German, Spanish and Italian, and only 12 per cent said that they never found it necessary to speak in the language of their customers. Most of these rely on their overseas agents.

When recruiting export staff, 80 per cent now ask for candidates with knowledge of foreign languages but only 23 per cent award extra pay for this qualification.

Nearly half the companies operate language training programmes in company time and at company expense. And those firms where wives or husbands accompany employees abroad, most provide facilities for spouses to learn the new customer's own language.

Mr. Roland Morgan, general manager of Berlitz, says of the results: "The response from the Queen's Award winners suggests that other exporters will need to change their attitudes to languages if they are to do better against increasingly severe competition from other countries. Merely offering a competitive price, because of the fall in the value of sterling, is not always enough to win orders. But having close contact with, and being able to understand a customer, as well as being understood will always give a salesman an important advantage."

The survey, by the Berlitz School of Languages, covered 50 winners of the 1976 Queen's Award and sought views on the importance of foreign languages in doing export business.

The majority, 78 per cent, use one or more languages, the most popular being French, German, Spanish and Italian, and only 12 per cent said that they never found it necessary to speak in the language of their customers. Most of these rely on their overseas agents.

When recruiting export staff, 80 per cent now ask for candidates with knowledge of foreign languages but only 23 per cent award extra pay for this qualification.

Nearly half the companies operate language training programmes in company time and at company expense. And those firms where wives or husbands accompany employees abroad, most provide facilities for spouses to learn the new customer's own language.

Mr. Roland Morgan, general manager of Berlitz, says of the results: "The response from the Queen's Award winners suggests that other exporters will need to change their attitudes to languages if they are to do better against increasingly severe competition from other countries. Merely offering a competitive price, because of the fall in the value of sterling, is not always enough to win orders. But having close contact with, and being able to understand a customer, as well as being understood will always give a salesman an important advantage."

The survey, by the Berlitz School of Languages, covered 50 winners of the 1976 Queen's Award and sought views on the importance of foreign languages in doing export business.

The majority, 78 per cent, use one or more languages, the most popular being French, German, Spanish and Italian, and only 12 per cent said that they never found it necessary to speak in the language of their customers. Most of these rely on their overseas agents.

When recruiting export staff, 80 per cent now ask for candidates with knowledge of foreign languages but only 23 per cent award extra pay for this qualification.

Nearly half the companies operate language training programmes in company time and at company expense. And those firms where wives or husbands accompany employees abroad, most provide facilities for spouses to learn the new customer's own language.

Mr. Roland Morgan, general manager of Berlitz, says of the results: "The response from the Queen's Award winners suggests that other exporters will need to change their attitudes to languages if they are to do better against increasingly severe competition from other countries. Merely offering a competitive price, because of the fall in the value of sterling, is not always enough to win orders. But having close contact with, and being able to understand a customer, as well as being understood will always give a salesman an important advantage."

The survey, by the Berlitz School of Languages, covered 50 winners of the 1976 Queen's Award and sought views on the importance of foreign languages in doing export business.

Popular image

"I think it is fair to say that the resigned acceptance of the popular image of the British businessman abroad, battling along on his own language and expecting everyone else to speak it, is turning a little sour. Foreign customers are now able to meet a growing number of salesmen from other countries who are perfectly capable of conducting business in the customer's own language."

WHY A MULTI-MILLION POUND INDUSTRY IS COMING ASHORE IN LONDON.

The value of the world offshore industry has now reached the £15 billion mark. And the North Sea is the most prolific offshore area in the world after the Gulf. The total number of oil rigs there is still above forty. And the largest steel structure ever built — twice the size of the Eiffel Tower — has been installed in the North Sea this year.

Current exploitation programmes during the next three years will push U.K. production near to the 150 million tons a year mark by 1980. And this means that Britain will be self-supporting in oil and gas by the early 1980's.

Already London is recognised as the offshore capital of the Eastern Hemisphere, which is why London's Olympia will host the World Offshore Exhibition and Conference from October 4th-7th 1976.

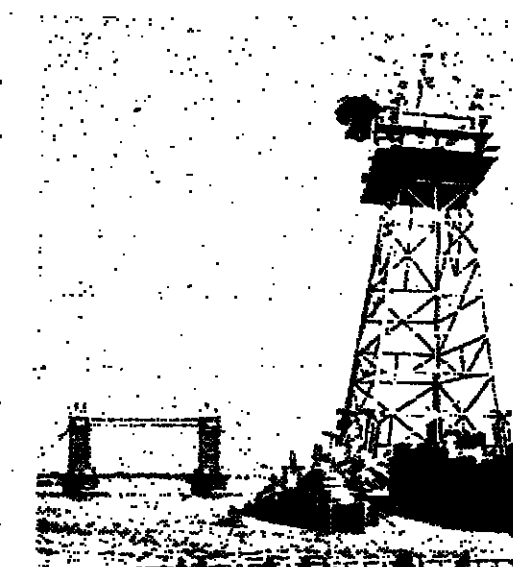
The Exhibition will cover the latest developments in offshore equipment, materials and services, as well as being a forum for new ideas in technology and practice.

Hundreds of companies will exhibit products covering all aspects of the offshore industry, including: casing, production platforms, tubes, valves, pumps, compressors, paint, cathodic protection, supply boats, cranes, derricks and winches.

To complement the Exhibition, the World Offshore Conference is being held at the Royal Lancaster Hotel, London, on October 5th and 6th, 1976.

Some 40 speakers — all world authorities in their respective fields — will present papers on exploration, supply, production and research.

Key speakers and topics include: Peter Kelly, Director, Long-Term Co-operation, I.E.A.; "World Offshore Activity"; Donald A. Logan, CMG Delegation to U.N. Law of Sea Conference; "Sovereignty Problems and World Offshore Development"; Quentin Morris, Group Financial Controller, British Petroleum Ltd.; "Offshore Exploration and Development Costs"; E. Shannon, President, Santa Fe International; "Host Governments, Operating Companies and



Photograph by British Petroleum

Contractors": H. R. Warman, "World Oil and Gas Production"; Giuseppe Bacoccoli, Petrobras; "Brazilian Offshore Prospects"; Leslie Biner, Taywood-Santa Fe; "Prediction and Control of Future North Sea Development Costs"; M. G. Brigham; Halliburton; "Drill Stem Testing from Floating Vessels"; Dr. E. Edelmann, Prakla-Seismos; "New Developments in Offshore Seismic Techniques"; Paul Holbrook, Gaffney, Cline and Associates Ltd.; "Prospects for the Asian Pacific Region"; K. J. Jameson, BP Petroleum Development Ltd.; "Aspects of Tethered Buoyant Platform Systems Development"; R. D. Koch, British Petroleum Co. Ltd.; "Production Drilling on the Forties Field"; Sverre Lund, Statoil; "Pipelines Across the Norwegian Trench"; Dr. N. Prasad, Chairman, Indian Oil and Natural Gas; "The Bombay Paleohigh"; T. S. Carter, N. L. Baroid Petroleum Services; "Drilling Fluids for Offshore Programmes"; M. A. Taylor, Manager, Protech International (UK) Ltd.; "Cost Effective Gas and Oil Gathering Systems — A Computer Approach"; World Offshore 1976, is being organised by Fairs and Exhibitions Ltd., the international company that has organised successful trade fairs throughout the world.

I am interested in attending the World Offshore Exhibition. Please send me further details. I am interested in attending the World Offshore Conference. Please send me further details.

Name _____ Address _____

World Offshore London '76. Exhibition & Conference.

To: Fairs and Exhibitions Limited, 21 Park Square East, Regent's Park, London NW1 6LH. Tel. 01-375 8200 8235. Cable: F&E London NW1. Telex: 21879 'Attention' London.

FT27/9

LEGAL NOTICES

No. 000126 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000127 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000128 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000129 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000130 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

APPOINTMENTS

No. 000131 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000132 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000133 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000134 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL, DRAPTON LIMITED**
In the Matter of the Companies Act 1948

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named company by the High Court of Justice was presented to the said Court by **CITIZENS TRADING CO. LTD.** on the 23rd day of September 1976, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, W.C.2, on the 28th day of October 1976, and any creditor or contributory of the said company desirous to support or oppose the making of an Order on the said Petition must appear at the time of hearing in person or by his counsel, and a copy of the Petition will be furnished to any creditor or contributory of the said company requiring such copy on payment of the regulated charge for the same.

No. 000135 of 1976
In the HIGH COURT OF JUSTICE
Chancery Division
The Matter of **MILL**

HOME NEWS

A LOOK AT BLACKPOOL: SCENE OF THE LABOUR PARTY CONFERENCE

A brash, big-headed, vulgar success

BY MICHAEL THOMPSON-NOEL, IN BLACKPOOL

IT IS IMPOSSIBLE to be rude about Blackpool, just as it is impossible to be rude enough. No matter what anyone says or thinks or feels about its ugliness, awfulness or its monumental vulgarity, Blackpool bounces back at you, clapping you heartily between the shoulder blades with one hand while emptying your pockets with the other.

In one breath it describes itself as Fun City, the resort of the century, Britain's conference capital and the entertainment centre of Europe. The labels blend truth with hogwash in equal proportions, for there is no limit to the town's conceit nor constraint to its popularity.

Curious

It is host this week to the Labour Party Conference but it hardly seems aware of it. The resort is in the midst of its season, the illuminations, which light up the promenade like a crazy neon cake.

Blackpool has taken a little trouble with the lights this year, partly because it is the town's centenary, partly because of their enduring popularity. The new tableaux include Oriental Avenue, Pet's Parade, Cavern Caprice, North Sea '76 and Bygone Blackpool, each more ludicrous than the next.

Yet by October 31, when they are mercifully switched off, the illuminations will have helped suck an estimated 10m. free-spending tourists to this spot on the Lancashire coast. For the town is a memorable commercial success.

One young entrepreneur, in the midst of explaining to me the supernatural workings of a candy floss franchise, said:

"You're welcome to come and say that Blackpool is brash, big-headed and vulgar. We know it."

But we've never had a bad season. If the rest of the country made the money that Blackpool does it would be laughing. We give the public what they want — it's as simple as that."

The last major study of the Blackpool success story was a survey carried out in 1972 by the English Tourist Board. This calculated that in that year the resort lured 2.4m. holidaymakers and 3.8m. "trippers" (day or evening) who between them spent £70m., a figure which excluded the spending of trade and conference visitors. It found that roughly half of all Blackpool holidaymakers had visited the resort more than ten times.

In the curious language of such surveys, Blackpool was described as appealing to "people who like the bright lights, sociable people, teenagers, young adults, people with children, working-class people, people with money to spend and people who aren't bothered about the weather. Similarly Blackpool would not be very appealing to: people who like to get away from it all, upper-class people, sun worshippers and people who have to watch the cost."

If anything, Blackpool has blossomed since 1972. The M55, a spur of the M6, was opened last year, so that Birmingham, for example, is now only two hours away. There has also been a big investment in self-catering accommodation and continuing steady spending on new and more lucrative forms of entertainment.

As a result Blackpool expects to draw up to 7m. visitors who will spend £130m.-£150m. during the eight weeks of the

illuminations. Where does it go? It goes first into the resort's 4,500 hotels, guest-houses and self-catering flats.

With a few exceptions, the hotels in Blackpool wash the length of the promenade—the Atlantic, the Florence, the Balmoral, the Spa—each with a sun lounge where guests sit and watch the rain sheet down, each with its plastic-covered chairs, multi-patterned carpets, dinky cocktail bars and lounges full of bored bookies from Bolton.

Money trap

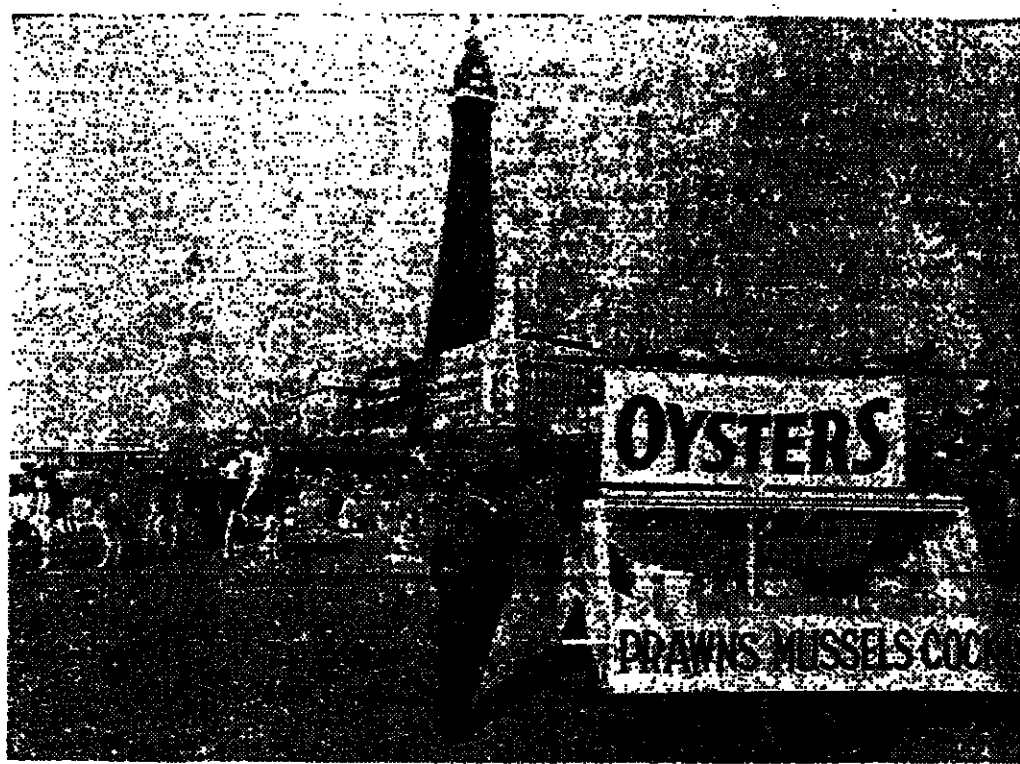
The guest-houses are just guest-houses: pink-curtained bedrooms of gloom where broad-bosomed mill girls and factory workers from the Midlands eat and sleep noisily.

After that, the money disappears into Blackpool's shops and entertainments. The town is a money trap. There are eight live shows (with a top ticket price of £1.60) nine cinemas, six ballrooms, 18 "cabaret lounges," more than 50 clubs, three casinos and countless bars, discotheques and night spots. There is also a zoo, the Tower and the 40-acre Pleasure Beach.

Bingo

It is impossible to move anywhere in Blackpool without spending money. Everywhere you turn is a rash of souvenir shops (tag, tag, tag), head barometers, Wembley toys, rude ashtrays, calendars with verses addressed to "Mother," "Home," and "Friendship," and nude playing-cards, ice cream parlours, bingo and amusement arcades, fish and chip shops, bars, beer kellers and restaurants.

A glimpse into the inner work-



On the beach at Blackpool

ings of the promenade was supplied by a visit to the prize bingo game on Central Pier. The games lasted about 30 seconds to one minute, plus a similar interval, and seated 50 customers at 10p a time. This gave a likely income of £150 per hour.

The winners of each game receive a ticket entitling them to a prize. It took me eight goes to win a ticket. My prize was a set of glasses with a probable wholesale value of 75p. In Blackpool that's the way the money goes.

For reasons which may now be clear, Blackpool is not particularly popular with conference-goers, but they come—

2,500 of them for the Labour Party gathering this week—because of its sheer capacity to house, feed and bed them. Most of the large conferences are staged at the Winter Gardens. It is there that much of the conference socialising is done—tea meetings in the Baronia Hall and the Windsor Bar, civic and trade union receptions.

Drinking

Those who can afford it eat in the Louis XVI Room at the Imperial Hotel or at the Town and Country Restaurant in Talbot Square. The delegates do much of their serious drinking at Yates's Wine Lodge.

Otherwise they keep their heads down. But in Blackpool the show never stops, at least not before Christmas.

The Blackpool Hotel and Guest Association is sending out copies of its Christmas Guide, wherein, amidst 140 similar advertisements: "Joan and John Taylor invite you to Spend A Happy Christmas At Holiday Licensed Hotel, 1. Vance Road, Central, Good Food, Bingo, Games, Fancy Dress, Organ, Fires All Rooms. 4 Days Minimum £35.00p. Personal Attention. Phone 28475. Book now. Hurry. It could be an unforgettable experience."

Howe attacks 'hollow ring' of Healey promises

THE WORDS of Mr. Denis Healey had the "same hollow ring" as those of Dr. Goebbels, Sir Geoffrey Howe, Opposition spokesman on Treasury and Economic Affairs, said at the week-end.

"Even until a few weeks ago, Denis Healey was promising us the prospect of an economic miracle," Sir Geoffrey said. In the same way, Dr. Goebbels, the Nazi Propaganda Minister, was still talking in 1944 of the "military miracle which would save Hitler's Germany."

Sir Geoffrey said at Burgh Heath that Mr. Healey's economic policy was "crumbling into ruins."

He described Mr. Jack Jones, leader of the Transport and General Workers' Union, as "the disappointed gurgler with the greatest influence over Cabinet thinking."

Mr. Jones had called for yet another capital levy on firms. Labour's national executive had

called for the nationalisation of the banks and insurance companies, and the Government wanted to increase public spending.

"This package of economic illiteracy could do nothing but harm to industry, already crippled by the triple evils of high taxes, high inflation and price control."

"Mr. Healey's silence has been deafening—and has, perhaps, impressed our creditors even more than his former optimism. 'What is happening to the exported boom of which we have heard so much?' It could hardly be described as strongly established. Although international trade was expanding, our exports fell in the last six months."

He said it was difficult to place faith in Mr. Healey's forecast of substantial reductions in the number of jobs. Britain would be very lucky to reach single-figure inflation "for even a three-month period in 1977."

Closed shop 'should be declared illegal'

A NEW attack on the Conservative Shadow Cabinet came at the weekend from Stephen Ayres, secretary of the Right-wing Selsdon Group.

He criticised Mrs. Margaret Thatcher, the Tory leader, who returned to London at the weekend after a tour of Australia, New Zealand, India and Pakistan, for making all her best speeches abroad. "The declaration of an ideological alternative to every (not of socialism) must now go into higher gear—and it must take place at home," he said. "Even this Mrs. Thatcher has nothing to fear."

Mr. Ayres told a Tory meeting at Rockwood, Somerset, that the motions submitted to the Conservative conference from the rank and file showed a clear demand for "a more distinctive and aggressive posture." He accused the Shadow Cabinet of diluting Conservatism.

On the closed shop 36 constituencies reject the Principle. These motions are emphatic. There must be no compromise; the closed shop should be outlawed. It must be declared illegal. The Shadow Employment spokesman's view that the

closed shop is a prerequisite to good industrial relations is endorsed by a mere handful. To counter the ideological shift to the Left, the Conservatives must proclaim their intention to make irreversible strides towards capitalism.

Scrap subsidies, end the nationalised, cut taxes and end the closed shop and stop pushing industry around. If in a week's time there is not even an inkling of such a commitment, then I predict the mutterings of the rank and file will not be silent for long."

THE EAST MIDLANDS Electricity Board is modifying prepayment meters which come off circuit to take 50p coins instead of 10p because of rising costs of electricity.

The area electricity consultative council has been told nearly half the Board's 200,000 meters take 5p coins and these are gradually scrapped.

Receiver for ship company

THE Scottish shiprepairers Alexander Stephens, with 300 employees at yards on the Clyde and Forth, has called in a receiver.

The company, which has faced long periods without work over the past few months, blamed the decision on lack of repair contracts causing financial problems. In addition, there had been a two-week strike which closed its main yard at Linthouse, on the Upper Clyde.

The Bank of Scotland is expected to announce the appointment of a receiver to-day or to-morrow. His first task will be to assess whether the yards can continue. They are run by separate companies. Alexander Stephens Shiprepairers at Linthouse, and Alexander Stephens (Forth), at Leith, where about 40 are employed. The family-owned Stephens group has announced closure of its engineering company at Linthouse, where only 70 of the original work force remain.

The Linthouse strike, by 15 boiler-makers over a disciplinary issue, ended at the week-end after the workforce was told of the decision to call in a receiver. The strike lost the yard two dry-docking contracts.

Stephens was not on the Government's nationalisation list for the U.K. ship-repair industry. The Linthouse yard, which built ships until its incorporation into Upper Clyde Shipbuilders in 1968, is the last dry dock facility on the Upper Clyde for general use.

Timber cargo for Seaforth

THE BIGGEST timber carrier to dock at the Royal Seaforth terminal, Crosby, Merseyside—the Bianca, 52,000 tons—is discharging 33,000 cubic metres of Canadian timber and 1,500 cubic metres of plywood for the U.K. market.

It is also the largest shipment of Canadian wood to be carried by the owners, Seaboard Shipping, in 41 years' operating out of Vancouver.

Meters adjusted for dear energy

THE EAST MIDLANDS Electricity Board is modifying prepayment meters which come off circuit to take 50p coins instead of 10p because of rising costs of electricity.

The area electricity consultative council has been told nearly half the Board's 200,000 meters take 5p coins and these are gradually scrapped.

Public sector has 'crowded out' private borrowing

WORRIES by the banks about public sector borrowing crowding out the private sector are already being realised, it is argued to-day by Dr. David Lomas, economic adviser to National Westminster Bank.

The strong pressures against the pound have forced the authorities to adopt tight money measures earlier than might have been indicated by cyclical conditions in the domestic economy, he says in his monthly U.K. Economic Outlook.

"Many months ago, commentators, including ourselves, speculated how the authorities would cope when the economy recovered, with the problems caused by the massive public sector deficit. How could they then maintain monetary control? Would the authorities curb the public sector, or would the private sector recovery be slowed? Would the private sector be 'crowded out' in the competition for credit? Well, this issue has now been settled: the private sector has borne the brunt, has been 'crowded out'."

Recent policy measures had three aims: to help sell gilt-edged stock, and to strengthen the exchange rate. The threat of a seamen's strike, now averted, and general economic and financial uncertainties triggered the pressure against sterling which forced the authorities to adopt a tighter monetary stance. However, a more restrictive monetary environment is now becoming due in any case, because of the recent acceleration in the money supply.

The situation had been becoming incompatible with the conditions on which the International Monetary Fund will probably insist if, now, money increases. The U.K. was obliged to apply for a further loan before the end of the year. The Keynesian theory of expansion to full employment through increased government spending "contains a time bomb in the form of an inevitable built-in collapse of the balance of payments," according to Mr. Walter Ellis, an economist at Oxford University.

Nationalisation could produce a yet more unsatisfactory economic situation with funds "misallocated by bureaucratic fiat," and the money supply expanded rapidly to ease short-term difficulties, sending the inflation rate to new heights.

Calling for no more nation building, Mr. Redwood says that "at a time when the Government is cutting back severely in important welfare services and public sector investment programmes, it is involved in a shopping spree for new industries and companies to join the public sector."

National Savings exceed £12bn. for first time

BY DONALD MACLEAN

THE TOTAL invested in National Savings has risen above £12bn. for the first time, according to preliminary figures for August.

The amount in the movement increased £22.7m. on the month to £12,027bn. In the similar period last year there was a rise of £54.1m. to £11,064bn.

Premium Bonds, with net receipts of £5.5m., indexed linked Savings Certificates (available to those of national retirement age) with net receipts of £12.7m., and indexed-linked Save As You Earn contracts, accounting for

£4.7m., were among the major sources of revenue, while the Trustee Banks netted £4.4m.

Over the year to late August there was an increase of £362.5m. in the amount remaining invested in the movement. Of this, however, undistributed interest accounted for about £350m.

Over £350m. of gross savings was accounted for in the 1975/76 year by the National Savings Committee's 85,000 National Savings groups, through 4m. members. The amount compared with overall National savings receipts in the year of around £7bn.

The committee announced the group results yesterday, shortly ahead of publication of its annual report, as it maintains its campaign for the voluntary movement in the wake of the recent Government decision to withdraw civil service staff support for the movement.

Taxi surcharge of 10p urged

Financial Times Reporter

THE London taxi trade is starting a campaign aimed at getting Home Office approval for a 10p surcharge on all journeys to cover rapidly rising costs. The Home Office is the central authority for fixing London cab rates.

The London Joint Cab. Trade Committee claims that the cost of new cabs has risen by 30 per cent. during the past year, diesel fuel by 30 per cent., insurance by 37 per cent., and spare parts by 42 per cent.

There had also been an increase in repair costs, and several cab garage proprietors had gone out of business. Under the present fare structure, it adds, the operation of London taxis is "fast developing into a loss-making position."

Report from the Sumitomo Bank

Despite the continuing economic pressures in 1975 as Japan began its slow, and still selective, progress toward recovery, the Sumitomo Bank completed its 80th anniversary year with further expanded deposits and increased financial strength.

Expanded Deposits and Loans

Deposits during fiscal 1975 grew 18.6% to ¥7,097,750 million (\$23,687 million); loans rose by 11.6% to ¥5,832,381 million (\$19,464 million), notwithstanding stricter regulations on the loan volume set by the Bank of Japan. The securities portfolio expanded by 19.9% to ¥1,127,062 million (\$3,761 million). Earnings were adversely affected by reduced profit margins, but this was largely compensated by the effectiveness of global operations and the additional funds generated by increased deposits. Net income during fiscal 1975 was ¥23,818 million (\$79 million), giving the Sumitomo Bank the highest after-tax profits and earnings per share of any Japanese bank, for the 10th consecutive year.

Improved Banking Services

The bank's emphasis on consumer banking was maintained, resulting in a heartening increase in deposits by individual customers. Housing loans grew by 32.4%. On-line cash

deposit machines have been installed in 155 of the 188 domestic branches, providing a complete "automatic teller" system together with the on-line cash dispensers and change makers already in use in all branches.

Worldwide Network

The bank's worldwide network was further improved by the addition of new representative offices in Tehran and Cairo. It now includes eight overseas agencies and branches, seven representative offices, and 14 subsidiaries and affiliates.

Outlook for 1976

While the coming year will be marked by continuing domestic fluctuations and increasing complexity in overseas operations, Sumitomo Bank is determined to remain Japan's most profitable and progressive financial institution, on a basis of full commitment to the interests of society as a whole, and to its shareholders and customers.

The Sumitomo Bank Limited Consolidated Balance Sheet

(As of March 31, 1976)

Assets	In thousands of Yen	In thousands of U.S. Dollars
Cash and Due from Banks	1,055,346,880	3,521,932
Call Loans	24,767,839	82,656
Securities	1,127,062,487	3,761,263
Loans and Bills Discounted	5,832,381,148	19,463,978
Foreign Exchanges	541,549,713	1,974,135
Domestic Exchange Settlement a/c. Dr.	131,539,646	438,978
Bank Premises and Real Estate	120,522,884	402,212
Other Assets	42,878,326	143,095
Customers' Liabilities for Acceptances and Guarantees	1,304,928,308	4,354,842
Total	10,230,977,231	34,143,091
Liabilities	In thousands of Yen	In thousands of U.S. Dollars
Deposits	7,097,749,841	23,686,801
Call Money	297,032,478	991,265
Borrowed Money	550,770,169	1,838,045
Foreign Exchanges	182,800,741	610,047
Domestic Exchange Settlement a/c. Cr.	116,075,218	387,369
Accrued Expenses	164,214,672	548,021
Unearned Income	43,741,027	145,974
Other Liabilities	53,701,336	179,213
Reserve for Possible Loan Losses	80,652,959	269,157
Reserve for Retirement Allowances	42,987,361	143,459
Other Reserves	18,678,672	62,335
Acceptances and Guarantees	1,304,928,308	4,354,842
Capital (Paid-up)	66,000,000	220,257
Capital Surplus	5,642,788	18,831
Retained Earnings	206,001,661	687,475
Total	10,230,977,231	34,143,091

U.S.\$1 = ¥299.65 as of March 31, 1976

The Sumitomo Bank, Limited
Osaka, Tokyo, Kyoto, Kobe, Nagoya and other major cities in Japan

London, Düsseldorf, Frankfurt, Geneva, New York, Chicago, Los Angeles, San Francisco, Hong Kong, Singapore, Jakarta, Sydney, Mexico City, São Paulo, Rio de Janeiro, Beirut, Tehran, Cairo

To Holders of:
Rockwood International, Inc.
formerly Levin-Townsend
International, Inc.
a wholly-owned subsidiary of
Rockwood Computer Corp.
5% Guaranteed Convertible
Debentures due 1988
Copies of the Annual Report of
Rockwood Computer Corporation for
the year ended March 31, 1976 are
available. Should you desire copies,
please forward your request to the
Company at:
North West House,
119 Marybone Road,
London, N.W.1, England.
Attn: C. Fleming.

PUBLISH YOUR BOOK IN 90 DAYS

Wanted: book manuscripts on all subjects. Expert editing, design, manufacture and marketing—all under one roof. Completed books in 90 days. Low break-even. Two FREE books and literature give details, costs, success story.
Write or phone Dept. 740.
EXPOSITION PRESS INC.,
998 So. Oyster Bay Rd., Melville, N.Y. 11761.
(516) 822-5700 (212) 895-0881

If you want to pick up business in Japan, pick up your pen now.

Mail the coupon now for your copy of our new brochure on the JAL Executive Service, the first and still the most comprehensive package of business aids for the businessman visiting Japan. It makes sure you get all the help you need before you go, on the way and when you arrive.



JAPAN AIR LINES

To: Japan Air Lines,
8 Hanover Street, London W1R 0DR.

Name

Position

Address

FT-2

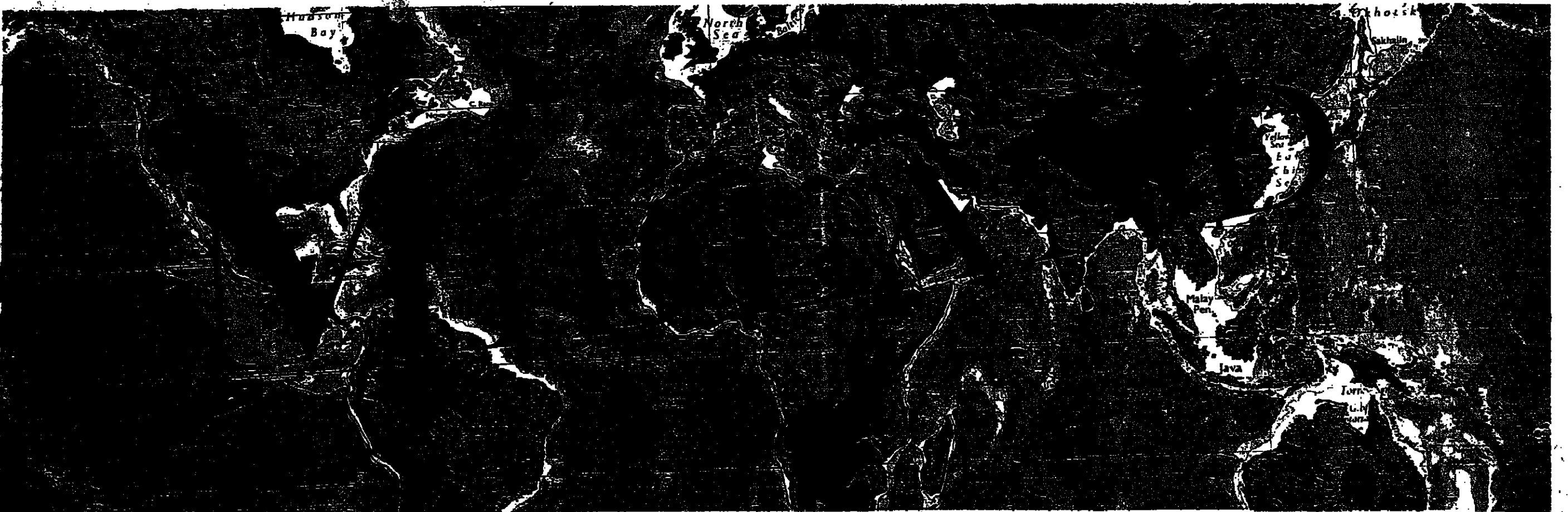
فكرنا اننا

The Financial Times

We deliver.

Export finance: We cut red tape to a minimum. Give you a prompt yes or no on whatever you require. And besides providing finance to U.K. exporters under E.C.G.D. schemes, we also supply finance direct to overseas buyers of capital goods and services.

TEST US: Contact Brian Shepherd, our senior executive in charge of Export finance. Tel. London 606 9944, ext. 4368, telex 888401 or write, Midland Bank Limited, International Division, 60 Gracechurch Street, London EC3P 3BN, England.



Map by George Philip and Son Ltd. © 1977.

Midland Bank International



Delivers.

فكرنا اننا

FINANCIAL TIMES SURVEY

Monday, September 27 1976

Commercial Vehicles

Although the latest sales and production figures are far from healthy, there is renewed optimism among producers of commercial vehicles. The feeling is that the economy is beginning to pick up and that the replacement demand cannot be held back much longer.

IF YOU'RE THINKING OF BUYING A TRUCK IN THE CURRENT ECONOMIC CLIMATE, YOU SHOULD SEE A SPECIALIST.



One of ours - a Ford Truck Specialist Dealer. There are 141 to choose from. Each sited to be within easy reach of local operators and national haulage routes.

So you don't have to go out of your way to get all the expert advice and attention you need in these days of rising costs and ever-changing legislation.

Unlike ordinary specialists, a Ford TSD deals in preventative as well as curative medicine.

His sales staff are expert at helping customers avoid trouble.

By tailoring Ford trucks to their needs. By quoting accurate running costs. By

advising on leasing, contract hire and outright purchase.

And by offering agreed charges for the tests and inspections that are often demanded by law.

(What they don't know from experience, we teach them. At the Ford Marketing Institute.)

Our specialists also have a lot to offer when it comes to the more general practices of after sales service.

Each dealership has an impressive line-up of large, well equipped workbays.

With the latest and best in diagnostic and maintenance machinery. Plus specialist tools for specialist jobs.

And Technicians that have qualified at the Ford Service Training College.

In a TSD's Parts Department, you'll find a stock of parts that's worth anything up to £250,000.

Along with our own twenty million poundsworth just 24 hours away at Daventry, the aim is to provide every part you'll ever need, any time that you need it.

On the subject of service, some other TSD offerings are worth noting.

One is their 24-hour recovery service.

Another is the Ford Care Credit Card (ideal for drivers who run into trouble after they've run out of cash).

And a third is the computerised Ford Operating Cost Analysis System F.O.C.A.S. (quarterly breakdowns of running costs that help you avoid running into trouble).

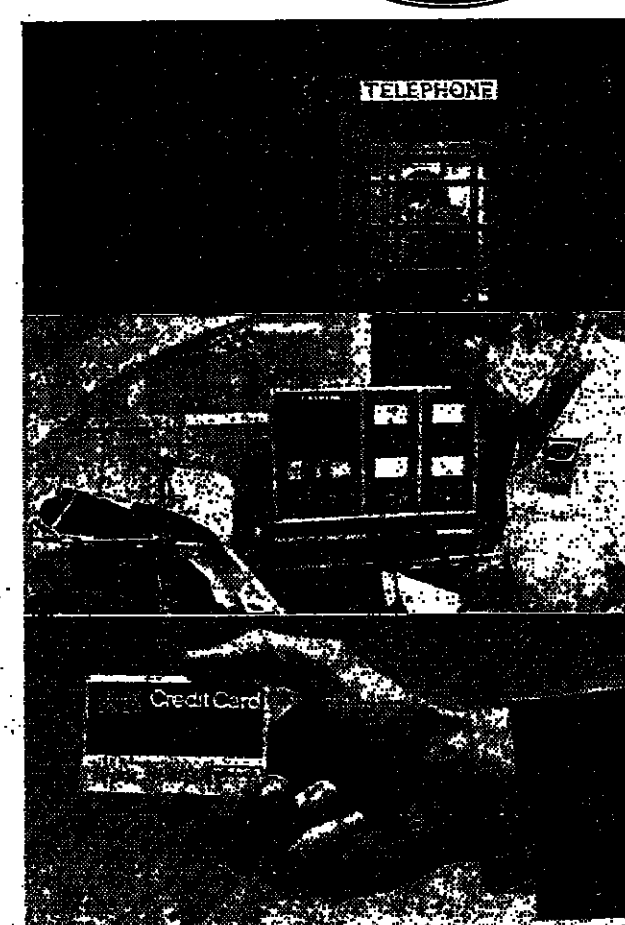
Now, with this good a dealer network you might expect us to be a little complacent.

We aren't.

The tough business of transporting goods gets tougher every year. So do the standards we set for our TSDs.

You see, at Ford, we believe the best way to keep ahead of our competitors is to ensure our dealers keep you ahead of yours.

FORD TRUCKS 



COMMERCIAL VEHICLES II

Optimism despite adversity

FOR THE FIRST time in about two years there is a mood of cautious optimism abroad in the commercial vehicle industry. Looking at the published statistics, particularly in Britain, it is difficult to see why this should be so. Following last year's deep slump in production and sales, virtually all the performance indicators have sunk even further. The industry is still in the depths of depression.

What seems to be influencing optimism among the operators and manufacturers is the two-fold view that the economy generally is beginning to pick up, and that the pent-up demand for the replacement of old vehicles cannot be held back much longer. Just as the car market has been stimulated by enforced fleet purchases this year—"enforced" in the sense that transport managers felt that they could no longer afford to keep old vehicles running—so the truck operators will be compelled to come back to purchasing shortly. The 13 per cent rise in sales in August, the first month this year that commercial vehicle sales have exceeded last year's performance, is therefore being interpreted as the first flicker of a rising market.

The industry remains extremely cautious, however, about turning this optimism into a concrete sales figure. This year, in any case, total sales are almost certain to be about three per cent down overall on last year's 220,000 new registrations; after that, the best prediction that the Society of Motor Manufacturers and Traders would come up with, when pressed on this matter at a recent Press Conference, is a three to five per cent improvement in 1977.

Judged against the buoyancy of the industry in the early 1970s this would not be an unduly significant increase. Registrations in 1973 reached 300,000 units, dropping from that to 237,000 in 1974 and 220,000 in 1975; so a five per cent increase on this year's estimated total of about 218,000 sales would mean an improvement to only about 229,000—still lower than the 1974 total and much below 1973 sales.

Perhaps the most serious problems encountered in the

U.K. market have been in the heavy articulated sector. Sales of 28-ton and over vehicles actually rose in 1974—the first year of the general commercial vehicle slump—from 11,383 units to 12,043. But in 1975 they dropped steeply to only 8,909 units. The year to date has seen a slight improvement, with sales up to the end of August standing at 8,635, suggesting a possible total for the year of just over 9,000.

The sluggishness of heavy articulated vehicle sales must have been all the more alarming to the industry following the big product expansion programme in this area during the last two years. The new series of heavy trucks from Bedford, British Leyland, Ford, Seddon Atkinson and the Cheshire-based companies of Foden and ERF, have all come onto the market in the face of the slump. Given that the importers have all been pressing their vehicles in this sector, it is not surprising that widespread and heavy

Cope

The difficulties experienced by the heavyweight vehicle manufacturers also goes some way to explaining the renewed pressure coming from the industry for a relaxation of the maximum weight restrictions. Britain, with a maximum limit of 32 tons gross vehicle weight, is still the odd man out in Europe, where weights of 38 tons and over prevail. But the continuing suggestion that Britain will eventually fall into line with EEC recommendations is a depressing factor on sales operators are caught between the poor economics of buying a 38-ton vehicle which they will have to operate at less than the maximum payload, or buying a 32-ton vehicle which may be

made obsolescent with a stroke of the legislator's pen.

Whether the British industry would be able to cope with a sudden increase of demand for 38-ton-type vehicles is another matter. The vehicle manufacturers insist that they would, and clearly the creation of new capacity has gone a long way towards solving the acute shortages of British products encountered in 1973.

In any case, given that the importers already have a strong grip on this market, and that one of the strongest distribution networks in the U.K.—Ford's—is selling an imported vehicle in its Amsterdam-produced Transcontinental, the U.K. manufacturers will find it hard to turn back the importers' tide. Competition from overseas manufacturers in this sector of the market has shown no signs of reducing in the last year. Indeed, Mercedes has stepped up its efforts by the takeover of its British distribution company, Fiat has introduced its new heavy range, and Scania has been trying to reorganise its dealer network.

As a result of these efforts by the overseas manufacturers, import penetration in these heavy vehicles stands at about 47 per cent; in other words, they accounted for about half of the 6,600 registrations up to August, which were in themselves a substantial proportion of the total 37,000 vehicles sold of over 3.5 tons gross vehicle weight. Indeed, the top sales—24.8 per cent—were achieved by Volvo, followed by British Leyland on 19 per cent and Seddon Atkinson 12 per cent. All the importers in the heavyweight class ("all other goods vehicles") have increased their sales this year.

The other significant point to make about importers this year is that they have been trying to widen their appeal. Many of them (Fiat, Mercedes, Scania, Volvo) have introduced vehicles in the 16-ton range; DAF has produced a special 32-tonner aimed specifically at Britain; and Scania is bringing in its Club of Four truck (the vehicle jointly designed with Volvo, Magirus Deutz and DAF) in the nine to 13 ton range. These vehicles, particularly in the 16-ton range, carry the importers into the heartland of the British

industry. They are vehicles which have not been so popular on the Continent as in Britain, and the U.K. manufacturers, at present hold about 99 per cent of the domestic market in this sector.

The ability of the British manufacturers to hang onto these sales depends crucially on British Leyland, which has great strength and market acceptability in its middle range vehicles. Leyland is, of course, now at the beginning of a large-scale investment drive which should give it not only new products, but a better and more efficient assembly facility. But since 1973, one of the worrying features of the British industry has been the gradual loss of market share by Leylands. The shortfall at home was largely made up by exports last year; this year, however, production at the State-owned company has dropped from a weekly average of 885 vehicles in 1975 to only 608.

Future

Britain's future performance will depend on how successfully Leyland, Bedford and Ford continue to perform in the middle-weight classes, and how well the heavyweight vehicles from Bed-

ford and Leyland come up to the standards of the Continental opposition. It seems to be generally accepted in the industry that no major manufacturer can opt out of the 32-ton and over class now that the Common Market is standardising weights and products. These vehicles are expected to continue to take an increasing proportion of sales in terms both of unit and monetary volume, and clearly if Leyland and Bedford want to be a force on the Continent (Ford is already there with the Transcontinental), they have to have vehicles that match the competition.

With this proviso about heavy vehicles, however, it still remains true that the British commercial vehicle industry is one of the strongest in Europe. It was both the biggest producer and exporter in Western Europe last year. Looked at over the longer term, the gradual decline in Britain's output has been rather more deep-seated than elsewhere in Europe. This is a troubling sign, as is Leyland's distribution weakness on the Continent. What can be said with certainty at the moment is that these weaknesses have been noticed and something is being done about them.

Terry Dodsworth

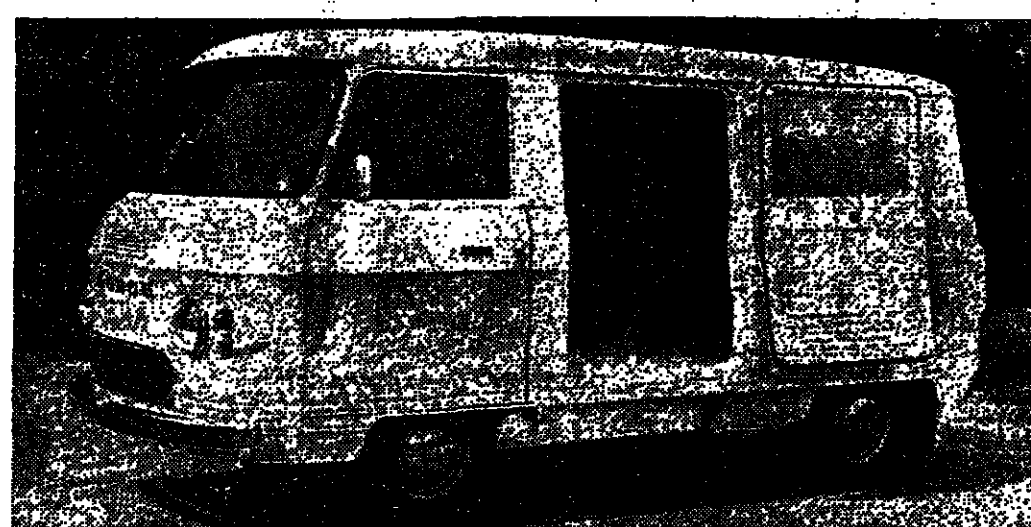
NEW REGISTRATIONS OF NEW GOODS VEHICLE IN THE UK BY MANUFACTURER

Manufacturer	January-August 1976	January-August 1975	Other goods vehicles up to 31 tons (includes light duty—e.g. Land-Rover)	All other new vehicles
BRITISH				
Bedford	8,787	10,215	8,640	10,408
British Leyland	20,085	22,819	14,784	14,311
Chrysler	—	—	3,613	7,008
Ford	14,294	11,571	22,974	24,913
ERF	—	—	—	1,140
Foden	—	—	—	664
Seddon Atkinson	—	—	—	1,678
Others	2	13	48	696
Total British	43,168	44,618	50,059	56,682
IMPORTED				
DAF (Holland)	1	33	—	603
Chrysler (France)	2,409	3,227	—	—
Citroen (France)	44	129	—	—
Honda (Japan)	97	—	—	—
Peugeot (France)	—	—	137	97
Renault (France)	1,026	1,008	—	—
MAN (Germany)	—	—	—	223
Magirus Deutz (Germany)	—	—	—	184
Mercedes-Benz (Germany)	—	—	753	664
Volkswagen (Germany)	—	—	3,903	3,904
Fiat (Italy)	—	—	1,187	1,221
Datsun (Japan)	2,378	3	—	330
Mazda (Japan)	—	—	807	965
Toyota (Japan)	8	—	1,342	2,042
Moskvich (USSR)	296	412	—	—
Scania (Sweden)	—	—	—	533
Volvo (Sweden)	4	16	94	89
Others	6,263	5,518	8,223	8,992
Total imported	14,481	15,136	16,674	17,131
GRAND TOTAL	49,431	50,136	58,282	63,674

EUROPEAN COMMERCIAL VEHICLE PRODUCTION AND SALES

	1970	1971	1972	1973	1974	1975
WEST GERMANY						
Production	314	286	294	299	260	278
Imports	33	20	20	25	18	22
Exports	157	147	161	174	174	178
New CV registrations	165	163	149	138	108	109
FRANCE						
Production	258	281	298	351	376	315
Imports	29	37	44	47	54	42
Exports	97	110	81	107	142	137
New CV registrations	208	227	249	270	253	206
GREAT BRITAIN						
Production	458	456	408	417	403	381
Imports	10	19	35	37	40	26
Exports	172	195	140	163	161	180
New CV registrations	265	267	282	307	242	225
ITALY						
Production	125	116	107	135	142	110
Imports	13	15	24	26	31	28
Exports	39	40	41	49	48	49
New CV registrations	85	79	82	84	101	75
SWEDEN						
Production	31	30	33	37	42	50
Imports	11	11	12	11	13	15
Exports	23	23	26	29	34	40
New CV registrations	19	17	16	17	17	17

Sorting out the legislation



The Dodge 2500 Spacevan.

One of the problems the new Minister of Transport, Mr. William Rodgers, will face during the next few months is how to respond to European legislation on the commercial vehicle industry. An ad hoc body of regulations has grown up in the member states of the EEC, not least the U.K., which the Brussels commission is trying to draw together with only limited success. Further attempts to make real progress will probably be made this winter.

The legislative effort in Europe is being directed at the improvement of working conditions for drivers along with the general safety of their vehicles—particularly the heavier weight lorries. Some aspects of this programme have already been pushed through effectively to the general satisfaction of most EEC countries. For example, the new cabs on heavy vehicles are much better sound-proofed than they were a few years ago. Their noise is not as intrusive either to the general public or the driver, and they have been made much safer for the driver. The modern cab has a greater capacity to withstand blows either from behind—tests indicate that some 80 per cent of all serious injuries to a driver are incurred by his own load swinging over and into the cab—or above.

Where disagreement exists is in the much thornier issues of vehicle weights. On neither of these questions has the EEC been able to enforce a generally agreed standard, and member states have adopted quite entrenched positions against some of the regulations already enacted. The U.K. is particularly out of line on drivers' hours. In France and Germany drivers are not allowed to work more than eight hours in any 24-hour period on safety grounds. Yet in Britain the limit is 11 hours and the haulage industry has adopted an extremely antagonistic position against any shortening of the working day on cost grounds. Such a regulation would, for example, make it impossible for one driver to do the London to Glasgow run in one day—while the cost of putting in another driver per vehicle would be at least £100 a week.

There is a further argument going on about permissible distances per driver per day. On the Continent, again mainly on safety grounds, drivers of heavy vehicles of more than 20 tonnes are restricted to 450 kilometres (about 280 miles) a day. Below this weight drivers are allowed to travel unlimited distances.

These regulations have had a dual effect on the development of the trucking industry on the Continent. First, they mean that for long distance traffic it is often necessary for a truck to carry two drivers; in this way they combat the effects of the eight-hour day driving restrictions, and the distance allowance. Second, because many vehicles are forced to carry two drivers, operators have been inevitably pushed towards running their vehicles at the heaviest weight possible. This explains the pressure in Europe to demand heavier weights and the way in which so many more vehicles do operate at a higher weight.

Equally these regulations, themselves, dominated by weights; clearly, shorter hours will mean rising costs which will eventually be introduced in Britain, explain, the renewed pressure that is being seen from the industry towards the introduction of higher vehicle weights. The better economies to be achieved from running at heavier weights would be one way of reducing the impact of shorter working hours for drivers.

The argument over the working day has also become entangled in the questions of tachograph legislation. This has become a dispute mainly between the Government and the trade unions, which appear to dislike the tachograph because of the limitations it imposes on a driver's freedom.

Directive

What the relevant EEC directive says at present is that from January 1, 1975, all new vehicles should be fitted with a tachograph, and that by the beginning of 1978 all retrospective fitment on old vehicles should have been completed.

Three new member states, Denmark, Britain and the Republic of Ireland were granted one year's exemption from the rule. Elsewhere in Europe, however, the tachograph is becoming accepted. The Germans are already using tachographs under national legislation, the French have recently passed a similar law, and the Dutch are moving towards it. The Italians and Belgians have announced their intentions of following the EEC directive.

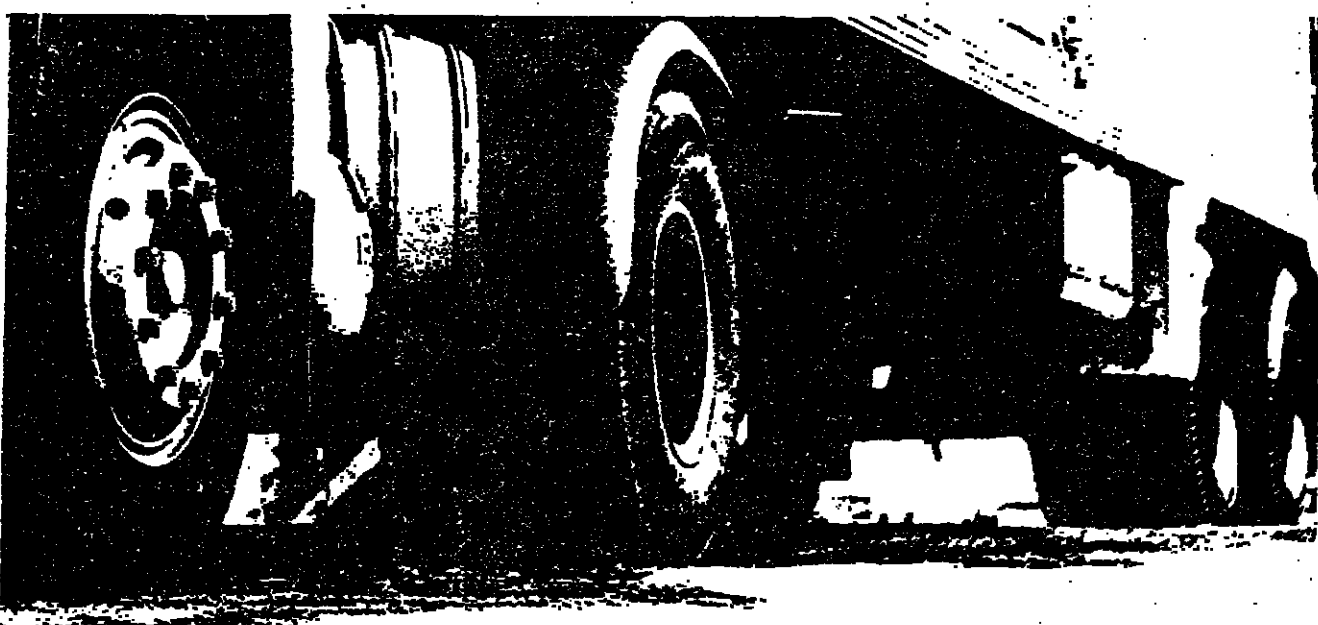
What the tachograph does is to give a complete record of how a vehicle has been driven. It is regarded in most official quarters as an essential aid in the enforcement of any legislation of drivers' hours, and it is also seen as a safety device in its own right. Some experts argue that lorry drivers tend to perform more carefully when they know that they have a tachograph on board, although there are as yet no national statistics on the success of tachographs in reducing accidents.

There has also been some argument in the U.K. about the state of preparedness of the tachograph industry if the EEC regulation is introduced. At present all new vehicles are fitted with the device, although it is disconnected for operating purposes, but, of course, there is a large existing fleet which would need conversion. The industry

itself, however, dominated by Lucas-Kienzle and Smiths, will mean rising costs which can only be effectively recovered by the more economic operating conditions of running heavier vehicles. The question of vehicle weights concerns manufacturers just as much as operators. One of the weaknesses of the British industry during the past five years has been its poor products at the top, heavier, end of the range. The reason for this is that heavier vehicles of the European type have not been required in Britain, and manufacturers have been reluctant to invest in extremely expensive new plant during a period of prevailing legislative uncertainty. As a result, importers have had a better product and made a killing with those operators who have been buying in the expectation of an increase in maximum weights.

Clearly, the investments in the truck industry which the Government is involved in through its ownership of 95 per cent of British Leyland may have some influence on official vehicle policy. Leyland has been instructed to seek a larger role for its commercial vehicles in Europe; and to do this there is a good case for having a co-ordinated design policy which can plan a vehicle suitable not only for Britain but for Europe as well. This is one point which will inevitably land on Mr. Rodgers' desk over the next few months.

favour of introducing the higher



Eaton - and the American connection

Cleveland Ohio USA is World Headquarters of the Eaton Corporation, a multi-national company designing, engineering, manufacturing and marketing a host of products used world wide. Of its four major product groups, Truck Components is the largest, being one of the few independent manufacturers offering a complete standard range of medium and heavy-duty truck components, interchangeable throughout the world and renowned for their reliability and performance. Years of experience and research have gone into the design and manufacture of heavy duty drive, steer and trailer axles, transmissions and auxiliaries, brakes and skid

Eaton drive axles range from 15,000 to 35,000 lbs GVW in single reduction, planetary double reduction and 2-speeds while their tandem models range up to 180,000 lbs GVW and 600 hp capacity in single reduction, planetary double reduction and 2-speeds. A range of transmissions is available from the 475, 542—5.6 speed models in both constant and synchromesh form, up to the renowned Fuller series of twin-countershaft multi-range designs in 5 to 15 speeds with torque capacities of 900 to 1250 lb. ft. Auxiliaries and PTO units are also available, tailor-made to meet customer's requirements. In addition, Eaton can offer a complete correctly matched drive-line to suit operator's specific duties.

Eaton heavy-duty brakes are available in double anchor pin and the new single anchor pin S-cam brake that simplifies brake shoe maintenance as never before.

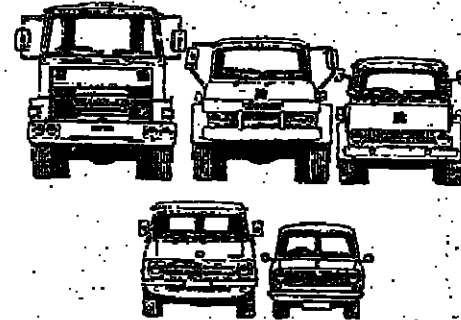
Over 25 million Eaton fan drive clutches have proved the reliability and long life of the viscous shear principle in driving engine cooling fans.

Eaton Skid-control systems pioneer the low maintenance, axle-by-axle approach that makes for improved stability and smooth, straight slopes. Eaton employs 14,500 people in Europe with 28 plants, of which 6 manufacture truck axles and transmissions and ancillary equipment.

Eaton House, Staines Road, Hounslow, Middlesex, is the European Headquarters controlling experienced and enthusiastic teams of technical and commercial staff who will be able to help you with your Truck Components requirements. Let Eaton be your driving force—write for full details to Eaton Ltd., Truck Components Group Marketing, P.O. Box 11, Worsley Road North, Worsley, Manchester M28 5GL. Tel: Farnworth 733475/6. See the full range of Eaton truck components on Stand 306, Earls Court.

EATON Truck Components

Lease your trucks and vans through Master Hire.



Master Hire can save you time and money.

For full details write to Vauxhall Motors Ltd., FREEPOST, Route 3545/C, Luton, LU2 2BR (no stamp needed), or phone Luton (0582) 27122 Ext. 3545.



COMMERCIAL VEHICLES III

Links in Europe

THE EUROPEAN commercial vehicle manufacturers are actually following their counterparts in the car industry on the road towards internationalisation. Events have been moving faster among car producers, where the pressures towards scale economies are more apparent. But the commercial vehicle manufacturers are fast catching up.

Indeed, there is a possibility that the truck industry will now further than the car manufacturers have gone towards international mergers. So far, attempts to conclude this kind of link between car companies—Fiat's abortive involvement with Simca and Citroën ring to mind—have been largely unsuccessful, and domestic European Governments have shown a preference for maintaining a locally-owned car production base rather than encouraging such mergers. But it has been able to put together a large pan-European truck company in its new Iveco combine, which takes in companies in Italy (Fiat and OM), France (Cnic) and in Germany (Magirus Deutz).

Most of the last decade, however, has been spent in the nationalisation of the home-owned industries, a process which has particularly affected Britain. This has seen the emergence of the Leyland Truck and as company from the amalgamation of the Leyland and BMC commercial vehicle interests, and the merger of Seddon and Daimler under the overall control of International Harvester. Within Leyland, several long-established company names, such as Guy and AEC, repre-

sented marques which were once part of independent companies, are gradually disappearing, and the only small manufacturers of note that remain in existence are the Cheshire-based concerns of Foden and ERF.

On the Continent, the major step towards German production re-organisation was the takeover, about a decade ago, of Hanomag-Henschel by Mercedes. In France this has been followed more recently by the Government-backed merger between Berliet, the former Citroën subsidiary and Saviem, which is owned by Renault. This amalgamation, conceived about a year ago, and still in the early stages of development, creates a very substantial grouping in both the French light and heavy vehicle sectors.

Significant

The most significant event within the last year or so, eclipsing all the more localised national developments, has been the emergence of Iveco. Although effectively under Fiat management, with the shareholding in the holding company split 80/20 between the Italian group and Magirus Deutz, Iveco represents a genuine attempt to establish a European as opposed to a national company. The long-term intention is to concentrate different assembly activities, on different sites, heavy trucks in northern Italy, for example, and off-road vehicles at Magirus—but the group also intends to develop common component manufacturing facilities and to rationalise buying systems throughout the Continent. Presumably, in the long term the separate sales organisations will be integrated,

leading to a flow of imports and exports of Iveco vehicles across what are currently national boundaries within the EEC. It is difficult to foresee the emergence of any other group of quite the radical nature of Iveco in the near future. Indeed, the pace of amalgamation may well slow down now because only a few of the smaller independent companies remain. Speculation continues about the possibility of a merger between Volvo and Scania—vigorously denied by both companies, which in the past have been noted for their differences more than their similarities—and ERF and Foden in Britain. The question of International Harvester's intentions in Europe also remains puzzling, with ownership of Seddon/Atkinson and a large stake in DAF, the Dutch group, International now has several options open to it in establishing a significant European presence alongside its major U.S. competitors.

The most likely development, now that the state of mergers has petered out, is towards more inter-company co-operative agreements. These kinds of deals have a reputable pedigree in Europe, and recently led to the most ambitious plan yet—the Club of Four truck which was jointly designed and developed by DAF, Magirus, Saviem and Volvo—and, although identical, is sold separately through each manufacturer's outlets.

The Club truck was meant to fill a critical gap in the vehicle range of each of the four manufacturers. But the difficulty with the project, as foreseen by many critics, is that each of the participants emerges with the same visible product at the end.

Clearly, this creates difficulties in marketing, since the manufacturer is faced with the problem of differentiating a vehicle from competitors which look just the same. Because of this, the Club of Four experiment is unlikely to be repeated, and, in any case, both Saviem and Magirus have merged their interests with other companies since the Club truck was launched.

A much more likely course of development is towards more joint component manufacturing deals. This has already been pioneered in the car manufacturing field, the most notable case being the three-way engine project which has produced the V6 unit for Volvo, Renault and Peugeot. In the commercial vehicle industry, there have already been some tentative moves in this direction—Mercedes and MAN, for example, have collaborated on engine development for some time—but there are now signs of greater interest in expanding the scope of such projects.

Interest

It is firmly expected, for instance, that MAN and Volkswagen will go into the light-weight truck business in co-operation. For both companies this will be a new area of interest, taking Volkswagen higher up the weight range than it has been before, and MAN which has a newly-designed cab—launched for its recent LT range—on hand, and for MAN which has much greater experience of diesel engine manufacturing. Each company complements the

other.

Even more interesting is the recently-announced design agreement for a new range of automatic gearboxes between Mercedes and Iveco. This brings together the two most powerful heavy commercial vehicle companies in Europe, and concerns which up to now have been deadly rivals. For these two organisations to have come together and collaborate on such a vital component as the gearbox indicates the kind of pressures commercial vehicle manufacturers are now under to restrain costs and get the benefits of much larger research organisations. In the longer term the two companies are planning to establish common manufacturing facilities, and probably a joint plant.

It is to be expected that such deals will go further in the future. Although Continental manufacturers in particular—plus some U.K. producers like Foden—have jealously guarded their right to make all the main components in their vehicles, this principle seems to be breaking down under the greater economic pressures toward standardisation. Some commentators have argued that this trend will mean greater opportunities for independent proprietary suppliers of engines, gearboxes and axles. But standardisation could equally mean more joint activity between manufacturers anxious to keep production—and hence quality and design standards—under their own roofs. The Mercedes-Iveco deal could well be a highly significant pointer.

Terry Dodsworth

Bad timing of French merger

THE MERGER of France's two biggest truck manufacturers, Berliet and Saviem, could not have been more badly timed. Despite the prospect of producing by the Government and of persuasive arguments from industry analysts, it was only in late 1974 that their opportunity finally arose to force the hand of the reluctant protagonists.

The occasion was the short-run merger of a near-bankrupt Citroën Motor Company, Berliet's then parent, with its profitable rival Peugeot, and at last the French Ministry had sufficient leverage to oblige the owners of both Citroën and Berliet, the powerful and secretive Michelin Tyre group, to do what it wanted. Renault, the State-owned motor manufacturer that controls Saviem, was able to acquire Berliet and at last France had a single heavy vehicle group with a capacity of 8,000 units annually and combined sales of perhaps Frs.7bn. (\$10m.)—and with enough muscle to compete more effectively with Mercedes and Iveco (Fiat).

That at least was what the planners were hoping for. But the 12 months to the middle of 1975 in retrospect proved the most disastrous in the history of the sector: even now, a year later, the industry is still licking its wounds. Total registrations (including buses) dropped 7/ almost a fifth, in 1975 to 98,352 units, and the export market, which had surged ahead for the oil crisis, in its turn weakened. To-day the picture is lighter, even if orders are showing fresh signs of stagnation.

Pattern

The pattern emerges clearly from the latest figures from the two groups and from the industry federation in Paris. For vehicles of over 6 tonnes, production output in the first five months of 1976 was 1.4 per cent up from a year earlier at 22,405 units, and showed a respectable enough gain of 30 per cent over 1973. Exports, however, although a whopping 132 per cent higher than three years ago, are down 24 per cent over the last 12 months.

As for registrations, the improvement from the depressed conditions of 1975 is substantial at 61 per cent, (admittedly helped by aid given to corporate investment in the September 1975 refuel package), but sales are still 4.6 per cent below the levels of the halcyon days of 1973. The breakdown for output in the January-May period was 9,897 vehicles produced by Berliet, 5,073 by Saviem, and 5,872 by Unic, a French subsidiary of the Italian Fiat group.

In financial terms the story is much the same. Last year was catastrophic. Berliet and Saviem together lost over Frs.150m. (£24.5m.). More seriously, on the bus side, there should

of turnover—was a fraction of the amount spent (7 to 9 per cent) by either Mercedes or Fiat.

If any further ill auguries were required for the union of two rivals, it should be remembered that the relations between them, particularly on Berliet's side, were prickly. Founded by the legendary networks within France but to Marquis Berliet at the end of the last century, and a pillar of the conservative Lyons economy, Berliet had always looked somewhat askance at its nationalised competitor. Its association with the hermetic, ally sealed Michelin empire made matters no easier. Against this background it was scarcely surprising that until this summer little had been heard of Renault's plans to integrate the two companies. Now, however, the shape of things to come is beginning to coalesce.

Last July the then No. 2 in the Renault hierarchy (and overall master of its truck division) M. Christian Benillec outlined his strategy. "You must expect any miracles" were almost his first words, and over the sign is that after M. Benillec's departure to become Labour Minister in the new Government, his successor, M. François Zanotti intends to maintain the same cautious approach. Progress though is being steadily made.

Over the past few months one of the biggest problems seems to have largely been resolved—the chronic financial weakness of Berliet, which always shared the inability of its erstwhile parent Citroën to put its affairs in good order. Last year's loss was Frs.71m. (£11.5m.) and hardly an exception, for Berliet had rarely been profitable since the mid-1960s. Like Citroën, too, it had flirted with a number of mergers (the last being the protracted talks with Volvo in 1973) but never quite made it to the altar.

Since the Renault deal, however, things have brightened. A pruning operation has cut the workforce by 800, and overall indebtedness has been reduced by Frs.450m. by the middle of this year. Equally encouraging it now seems that the poor industrial relations which bedeviled the group are giving way to a calmer period. The outlook is that this year may well show a small profit.

The co-ordination of the two companies should pose no problem on the military side. As manufacturers of personnel carriers and so on, both have done well out of the strong worldwide interest in French armaments, and the Government's intention to strengthen France's own conventional forces bodes well. Inevitably, too, the military sector is one where the Government's powers of persuasion are great, and close co-operation with Saviem and Berliet is likely to grow very rapidly.

On the bus side, there should

Models

Saviem is given charge of the smaller vehicles, and Berliet the larger, the intermediate segment of the market is unlined. It looks certain that there will be direct competition between the middle range due to Berliet shortly and existing Saviem models. But the underlying thinking is to achieve a growing interdependence of components, buttressed by an inevitably increasing number of joint subsidiaries. In the arguments, too, Saviem and Berliet will give little about the merger came several years too late, and the challenge considerable if the new group is to make up the ground lost to Mercedes and Fiat, starting in 1960. While Fiat has 95 per cent of the Italian market, and Mercedes 60 per cent in W. Germany, Saviem/Berliet hold only half of the French market. For as it, despite Berliet's ventures in China, and the fact that Renault might be the most successful of exporters, French super Ministry of Trade, analogous to that in Japan, to give exporters a better chance. In its absence the group is concentrating its efforts on particularly promising markets—Indonesia and Malaysia in South East Asia, for instance, and Black Africa.

Probably the greatest assets of the new grouping are that the Government is taking a keen interest in its progress, and that its fate is largely in the hands of Renault, a conspicuously well managed concern and one which has adjusted as well as—if not better than—any other European vehicle maker to the changed world after the energy upheavals. The State gave Renault a wedding present of Frs.450m. at the time of the merger and further aid is possible. In the meantime there is an overriding reason why Renault's success should not rub off on its truck division.

Robert Cornwell

AVIS TRUCKS

cut the cost of transportation by the day... week... month... quarter... and

ONE YEAR CONTRACTS



Why commit capital in today's uncertain market. Now with the introduction of the Avis One Year Contract, you can have the best of both worlds: a comprehensive choice of vehicles, and rental periods from a single day up to 5 years Contract Hire.

The latest 'try-harder' innovation—the One Year Contract—offers you the most up-to-date choice of low mileage vehicles from our current national fleet. Each vehicle is operated under a full maintenance programme carried out by factory-trained mechanics in our nationwide network of workshops.

The benefits? Total flexibility. Reliability. Quality. Economy. And with Avis you enjoy them all without capital commitment.

Let Avis cut the cost of your transport.

For further details call or write to your local Avis Truck Rental Regional Headquarters, or complete the coupon.

BIRMINGHAM 38-49 Cheapside, Birmingham B5 6AX. Tel: (021) 622 3722.

GLASGOW The Factory Estate, Colchester Avenue, Cardiff CF1 5DA. Tel: (0222) 480052.

LEEDS 177 Saltmarket, Glasgow G1 5PU. Tel: (041) 552 4041.

LONDON Crown Point Works, The Cuffs, Leeds LS1 5PA. Tel: (0532) 444333.

MANCHESTER 234-244 Euston Road, London NW1 2DH. Tel: (01) 387 5485.

SOUTHAMPTON 500 Millbrook Road, Southampton SO1 1GD. Tel: (0703) 777971.



We give Green Shield Stamps on all rentals up to one year

To: The Sales Manager, Dept. FT 2, Avis Truck Rental, Tidwell House, Station Road, Haynes, Mids. Tel: 01-848 8766

Please forward a copy of the Avis Contract Hire Brochure and details of the 'One Year Contract'.

Name _____

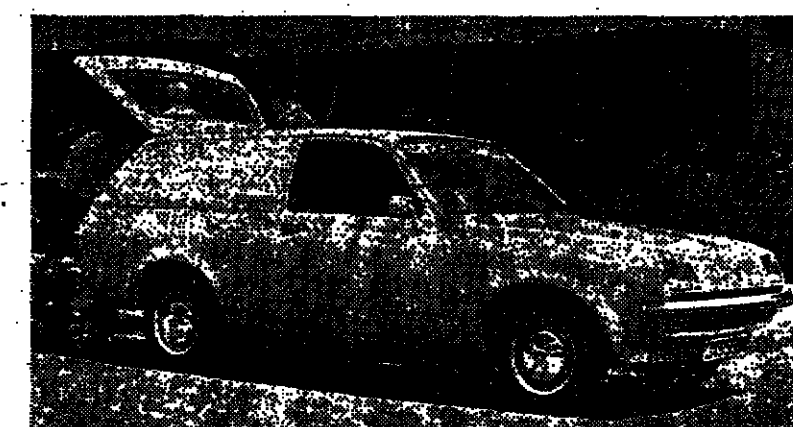
Position _____

Company _____

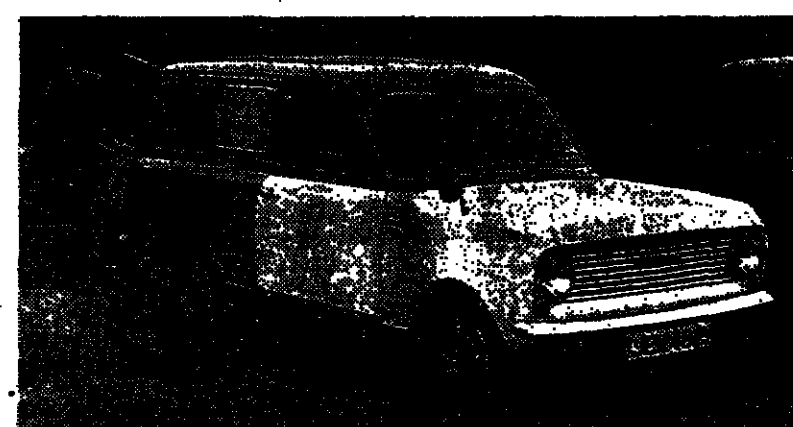
Address _____

Tel. _____

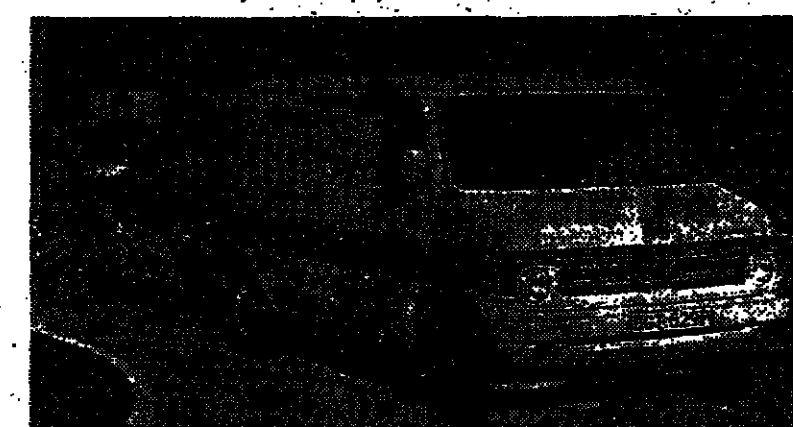
THE BUSY MAN'S GUIDE TO THE COMPLETE FLEET.



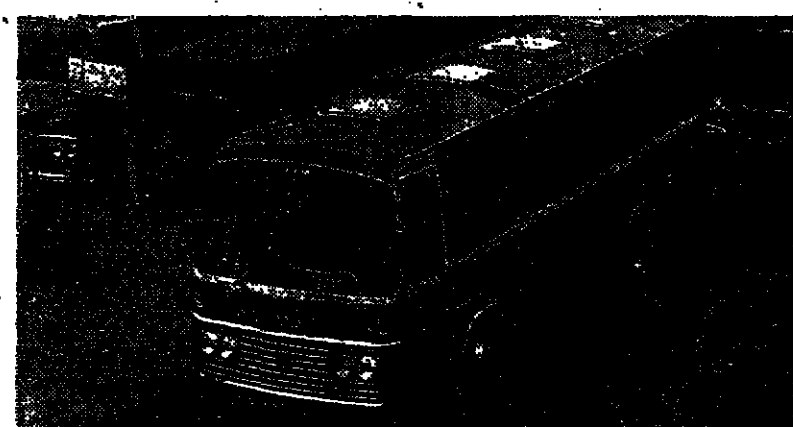
New Chevonne—1256cc Chevrolet engine—2 star petrol—stylish—comfortable—drives like a car—nearly half a ton payload.



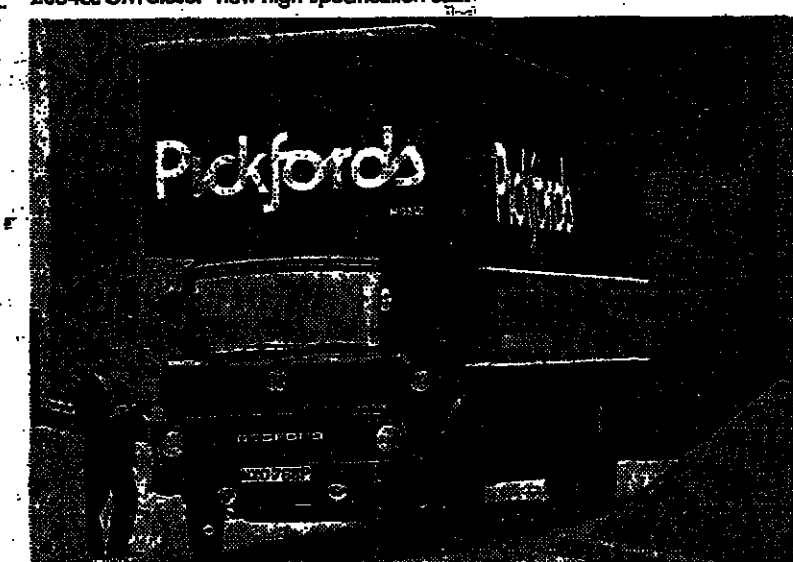
HA—Practical shape (88 cu ft cargo volume)—firm favourite with big fleets—low initial cost—two models.



CF—Whole catalogue of recent improvements—new option of well-proven 2064cc GM diesel—new high-specification cab.



Bus & Coach—PSV range including YLQ and YMT chassis with mid-engine design and Bedford 500 diesel—excellent ride and handling—low initial cost.



TK—Top selling range—4 wheelers, 6 wheelers and tractors—from 5.6 ton to 19 ton gross—renowned for high payload capacities.



TM Muscle Trucks—11 additional premium trucks, from 19 tonne 4 wheelers to 42 tonne double drive 6 wheel tractors—two full-width cabs (one a sleeper)—296 bhp Detroit Diesel 8V-7L

From light vans to top weight premium trucks. Expert advice on choosing the right vehicle for the job. And an unbeatable back-up and parts service.

We've enlarged the range at the lighter end with the introduction of the brand new Bedford Chevonne. It drives like a car. It's practical, economical, stylish and ridiculously comfortable.

In the middle of the range, CF models now offer you the option of the well-proven GM diesel engine. We've developed our premium Muscle Trucks too. There are 11 new models up to 42 tonne—delivering

a lot more power and performance.

Our traditional reputation for providing reliable and economical transport is confirmed by the latest figures, showing Bedford to be the only one of the top four UK manufacturers to increase truck sales this year.

Taken with our latest developments outlined above, we think you'll agree; there's never been a better time to buy a Bedford.

Have a word with your transport manager about the complete Bedford range. He probably hasn't had a chance to read this paper yet.



- ☒ Trail
- Manufa
- range o
- ☒ Cont
- Manufa
- of conta
- transpo
- ☒ Imp
- Special
- vehicle
- ☒ Fine
- Providi
- facilitie

COMMERCIAL VEHICLES V

Light trucks and vans

IN WHAT IS virtually certain sales in the eight months to prove yet another lean year for the motor industry, the bottom sector of the commercial vehicle market—car-derived vans, pick-ups, and light trucks—is proving no exception to the general rather gloomy trend.

In the first seven months of the year, sales of car-derived vans and pick-ups in the U.K. totalled 49,431, slightly down on the 50,136 in January-August, 1975, while sales of other goods vehicles in the under 3½ tons class (including light 4x4 vehicles such as the Land-Rover) declined sharply compared with the corresponding 1975 total at 56,282 against 65,674.

In each case, the drop suffered by the home producers was at odds with the experience of the importers which, after the thoroughly establishing themselves in the U.K. market with a penetration said only a few years ago never to be possible, have for some considerable time been making a determined effort to repeat the trick in the commercial vehicle sector.

Thus, on the car-derived van and pick-up side the British manufacturers notched up January-August sales of 43,168 vehicles against 44,613 a year before; for importers the corresponding figures are 6,263 and 5,518 respectively—their sales actually rose. In the remainder of the under 3½ ton sector, sales of imports did fall, but only marginally. A total of 8,223 vehicles was brought in from abroad, just 769 fewer than in the same eight months of 1975.

The British manufacturers, by contrast, saw a fall from 56,682 in January-August last year to 50,059 in the first eight months of 1976. And, by value, imports of goods vehicles of up to 3 tons gross vehicle weight were 55 per cent up on January-August, 1976 at £15.4m.

Those totals conceal a variety of performances by the individual companies competing in this important market, performances which, once again, bear a close parallel to what has been happening on the car side of their businesses.

Thus British Leyland was a big sufferer at the very bottom of the market, bedevilled by production problems of one sort and another as it has been. Its car-derived van and pick-up

Strength

In the remainder of the under 3½ ton field, the picture is slightly different. Here British were up to 8,457 against 7,310 Leyland, re-asserting its strength once it moves from its car factories, was the only U.K. producer to boost its sales this August, 1975, to 7,063. Ford year compared to last with 14,784 vehicles hitting the road against 14,311 in January-August, 1975. Ford's sales went down from 24,913 to 22,974, and Bedford's from 10,408 to 8,640.

Most while Chrysler U.K. remained disastrously. Chrysler U.K.'s bottom of the pack at 503 sales dropped from 7,008 to 3,613, a fall which, to an extent, mirrors belatedly that seen in the company's car sales as a result of the loss of confidence among buyers engendered by August figures may be, the company's well-publicised financial problems before the Government's rescue operation was mounted.

A look at the corresponding figures for the importers does not reveal the same threat to the U.K. industry seen in the car-derived van and pickup sector. Datsun is not a conall car-derived vehicle sales, also saw a decline with 8,787 sales against 10,215 in January-August last year. Ford's remaining major to 807, and Toyota's from 2,042 to 1,342. None of the other (Chrysler U.K. is a non-combatant at the moment although French-made vans and pickups are imported) by contrast secured a significant upturn, with 14,294 sales compared with 11,571 in the corresponding period of 1975.

Among the importers, the most spectacular gain was that notched up by Datsun which, after its phenomenal success in the U.K. car market, seems set to turn in a repeat performance on the light commercial vehicle side. In the first eight months of 1975, it sold just three car-derived vans and pickups here, against 6,215 a year earlier. All three major British manufacturers registered gains on 12 months before, with Ford again making the largest headway at 1,967 sales compared with 1,416 in August, 1975, British Leyland with 2,756 against 2,734, and Bedford with 1,384 against 1,318. Imports rose from 749 in August last year to 1,237, with Datsun's 507 vehicles making most of the running. The previous August, the company was not yet involved in this sector of the U.K. market.

For the remainder of the under 3½ ton field, August was also a better month. Total sales were up to 8,457 against 7,310 Leyland, re-asserting its strength once it moves from its car factories, was the only U.K. producer to boost its sales this August, 1975, to 7,063. Ford year compared to last with 14,784 vehicles hitting the road against 14,311 in January-August, 1975. Ford's sales went down from 24,913 to 22,974, and Bedford's from 10,408 to 8,640.

Most while Chrysler U.K. remained disastrously. Chrysler U.K.'s bottom of the pack at 503 sales dropped from 7,008 to 3,613, a fall which, to an extent, mirrors belatedly that seen in the company's car sales as a result of the loss of confidence among buyers engendered by August figures may be, the company's well-publicised financial problems before the Government's rescue operation was mounted.

Thus British Leyland was a big sufferer at the very bottom of the market, bedevilled by production problems of one sort and another as it has been. Its car-derived van and pick-up

ket amounted to just over 100,000 vehicles. Last year, it was down to 72,000. This year it may not make that. The medium truck sector was worth 90,000 sales last year; in 1976 it could easily be 5,000 or more down on that.

Again, the experience of individual vehicles reveal considerable variations in the overall market picture. Ford, for example, has significantly increased production of its year-old Transit this year (the one millionth left the production line four weeks ago), but only two months ago announced that it was ceasing manufacture of the parcels van derivative of its A series truck, the range designed to bridge the gap between the Transits, which go up to 3.5 tons, and the D series, which extends up the range from about 7.5 tons gross vehicle weight (the point at which drivers must have a heavy goods vehicle licence).

Success

By contrast, British Leyland, whose overall U.K. sales were down, has continued to score significant success with the Land-Rover, with output up to record levels and considerable sales being made to new Third World markets.

For Chrysler, there is nothing immediate to lighten the gloom, yet the company could soon secure significant advances.

Last month, it announced that it was all but dropping its long-established U.K. designations of Commer and Karrier (though a small range of municipal vehicles will continue to bear the Karrier nameplate) and switching to the Dodge name for virtually all its commercial vehicles.

Dodge, of course, is the name under which the company's heavier trucks have long been known: more importantly it is the name the Chrysler group already uses in the U.S. and in most Continental markets for its entire commercial vehicle range. The switch should, as the company says, allow it to make a greater impact in its promotion of U.K.-built trucks both at home and overseas, particularly when a new vehicle jointly designed for both commercial users but at private a more streamlined design

U.S. and U.K. markets is unveiled next year as the replacement for the 3.5 ton to 5.5 ton Walk-Thru van. In addition, the company is making plant improvements at its Dunstable commercial vehicle factory and planning a facelift for its PB van.

What the Chrysler move well illustrates is the increasing internationalism of the market. Importers may be making inroads in the U.K., but one reason the British manufacturers are not as gloomy as the home sales figures might suggest they should be is their success overseas. Exports of all commercial vehicles in the 3 ton and under category in the first eight months were 40 per cent up by value on the same period of 1975 at £103.5m. (with August seeing a 50 per cent rise on 12 months before). The increase was less than that notched up by importers, but the trade balance is still very healthy. Ford, and especially its Transit (built in Belgium as well as the U.K.), probably best exemplifies this overseas success: in Italy, for example, where Ford car sales are very low, the diesel Transit now accounts for virtually a third of the market for vehicles in its class, and the range has been used there and elsewhere to establish a commercial vehicle presence on which sales of other vehicles in the company's various ranges can be based.

Likewise, Bedford's CF and heavier TK van ranges have enjoyed significant success on the Continent, especially as its fellow General Motors subsidiary in West Germany, Opel, does not make commercial vehicles, leaving the Dunstable-based company a clear run. In the first five months of the year, 5,000 vehicles in the CF range were exported to the Continent, nearly 30 per cent more than the 3,900 sold there in the corresponding period of 1975, despite the generally stagnant European market.

Then there is Bedford's new Chevanne, a Chevette-based light van being unveiled at the Commercial Motor Show. This, with its 1-ton payload, extends Bedford's range as it goes into production alongside the company's established HA models, and is aimed not only at commercial users but at private a more streamlined design

motorists seeking low-cost and engineering business across transport.

Also new from Bedford is a General Motors diesel-powered version of the CF medium van on sale in the U.K. for the first time, though it has already scored some success on the Continent, notably in West Germany as the Bedford Blitz. Another variant of the CF is represented by Bedford's entry into the light 4x4 sector with a four-wheel-drive vehicle aimed primarily at the off-highway operator—construction companies and public utilities, for example—and offering a good deal more load volume capacity than usual in this class of machine.

On top of these is the GM Basic Transportation Vehicle, a low-cost machine for developing countries and using a high proportion of local labour and material but based on mechanical kits shipped out from Britain. Markets for these have been found in more than 20 countries.

British Leyland's Land-Rover success overseas, with around 75 per cent of production going abroad, is almost legendary, but its other commercial vehicles have also received a good response. Thus, the two-year-old Sherpa range, which starts where the car-derived models leave off, is selling successfully in France, Belgium, the Netherlands, Denmark, Switzerland and Finland (where it is being employed by the national postal service, a use certain to test its abilities). And in Britain the Sherpa took 15.9 per cent of sales in its market sector in the first eight months of the year against 11.4 per cent in January-August, 1975.

Tougher

This internationalism, which is reflected in tougher competition all round, is seen in other ways, too. Thus, in the last couple of years there has been the development of Iveco, the truck group put together by Fiat in Italy, France and Germany, and the so-called Club of Ten design for a light truck shared between Volvo, its Dutch subsidiary DAF, Scania, and is aimed not only at commercial users but at private a more streamlined design

Europe, with Italy concentrating on heavy trucks and France probably becoming the centre for the lighter end of the market. With the Club of Ten, each company involved has local component options—Volvo, for example, using a Perkins engine—but most major parts, such as cab panels, are made centrally.

Then there are the hopes General Motors has for a deal with Poland under which it would be heavily involved in the creation of a new light commercial vehicle factory there—a deal which, if it comes off, could bring big orders to Bedford in this country.

Inevitably, of course, most attention to-day is being focused on the Japanese. Datsun's success in Britain was, it is clear, only a matter of time, and Mazda and Toyota have also made a significant impact here. On a world scale, and especially in the U.S. where demand is very high, the Japanese now dominate the pick-up business, a sector in which the European industry was once a strong force. In the 4x4 arena, Toyota's Land Cruiser has proved a major challenger to the Land-Rover in many markets: indeed, production, at about 100,000 units a year, is almost double that of the British Leyland vehicle (while American Motors' Jeep is made at the rate of about 120,000 vehicles a year).

Yet the only surprise about this Japanese challenge is, perhaps, that it took so long to emerge following the country's success in the car field. Datsun and Toyota are both, and long have been, very large-scale manufacturers of commercial vehicles, with, because of the Japanese road system, production concentrated at the lighter end of the market. And the marketing techniques, which have boosted their car sales so significantly are being equally deftly employed in this sector of the automotive industry.

On a totally different front is the competition conventionally powered light commercial vehicles could find themselves facing from electric vans. Clearly this is a long-term prospect. Equally clearly, it is one which could prove a practical possibility.

For the difficulties which have hit the development of the electric car—the lack of range and relative low speed of the models so far produced, factors that have virtually ended electric car projects in this country—do not necessarily apply to the humble delivery van used largely in towns on relatively short journeys.

Electric commercial vehicles are, of course, a long established feature of the roads landscape—the milk float is the obvious example. But that is, by and large, too slow for anything but door-to-door deliveries.

One project which looks like having considerable long-term significance involves five British companies making regular town deliveries which are collaborating in tests of an electric version of Chrysler's Silent Karrier van. The companies involved are the National Freight Corporation, a prime mover in the project, Advance Laundries, W. H. Smith, Ranks Hovis McDougall and Unigate. Over the next three years, they will be evaluating a vehicle with a 40-mile stop start range, a top speed of 40 mph (specifications believed to cover the requirements of the town-based 35 cwt vans now in service), and the ability to accelerate away from traffic lights and road junctions swiftly enough not to hold up other traffic.

Using Chloride batteries, the van costs 50 per cent more than a conventional vehicle. But its maintenance costs are claimed to be less and its life longer (ten years against seven for the conventional van), keeping it competitive nonetheless.

And, leaving aside the oil-saving implications, where it could well score significantly is in being usable in areas from which internal combustion engines are excluded, such as certain factory areas and shops in pedestrian precincts.

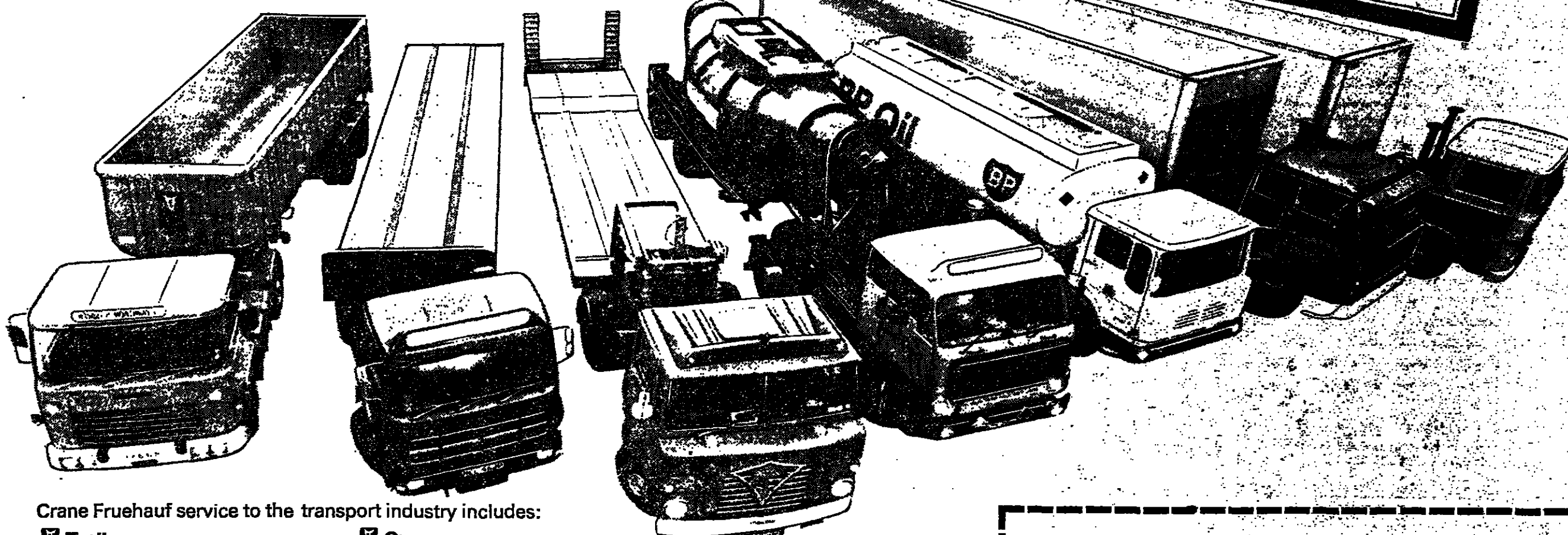
So, though the electric car—and, indeed, the electric bus—look like being a long way away from becoming fully practical propositions, the electric van appears to be on the way, adding yet another dimension to the light commercial vehicles business.

David Walker

STOP PRESS! 'Doubles' Systems in use on British roads for first time ever

Reed Transport became the first British operator to use the 'Doubles' System on British roads. The Doubles System, developed by Crane Fruehauf Trailers, was operated on runs between Kent and the North of England and demonstrated to full effect the advantages of motorway trunking with urban manoeuvrability which this system offers.

See us on
Stands 101
121 & 320
at Earls Court



Crane Fruehauf service to the transport industry includes:

- ✓ **Trailers:** Manufacturing the world's largest range of trailers and semi-trailers.
- ✓ **Containers:** Manufacturing a high quality range of containers for international transport.
- ✓ **Imperial:** Specialist body building for rigid vehicles.
- ✓ **Finance:** Providing expert advice and finance facilities for purchase and leasing.
- ✓ **Overseas:** Marketing CF group products worldwide.
- ✓ **Service & Equipment:** A nationwide network of depots supplying parts, original equipment and maintenance for trailers and containers.
- ✓ **Propan:** A comprehensive range of proven parts and original equipment for trailers, semi-trailers, rigid and tractors.
- ✓ **Holmes:** Wreck recovery vehicles.
- ✓ **Rentco:** Market leaders in U.K. trailer rental and contract hire.
- ✓ **Ramsey:** Power winches.
- ✓ **Pengco:** Demountable systems for drawbar trailers, semi-trailers and rigid.
- ✓ **Cometto:** Meeting the need for high capacity, heavy duty transporters and machinery carriers.

To: Crane Fruehauf Trailers Ltd Toffwood-Division, (Marketing Services Dept) Dereham, Norfolk. Tel: Dereham 3331 Telex 97251

Please send me details of your range and facilities

Name _____

Position _____

Company _____

Address _____

Tel. _____

COMMERCIAL VEHICLES VI

A key role in British exports

COMMERCIAL vehicle exports have been a strong factor in Britain's balance of trade since the war. In the last 18 months or so, as the car industry's decline has accelerated, truck and bus exports have become even more important. Cars still earn more overseas for the U.K. than commercial vehicles, but the latter are catching up fast; and whereas the car industry now suffers an adverse trade balance—imports exceeding exports—the commercial vehicle industry is still comfortably outdistancing imports, by a factor of about eight-to-one.

The main exporting strength of the industry undoubtedly lies in British Leyland. This tradition goes back to the old Leyland company, which from its base in Lancashire attacked world markets with unparalleled vigour in the 1950s and from this experience emerged as the dominant force in the British motor industry in the next decade. Leyland went by preference for the Commonwealth and Third World market—it broke through into Castro's Cuba, for instance, with a large bus order—rather than Europe, and thus established one of the broadest sales networks in the world for a single national company.

The value of this network was seen last year when Leyland's truck and bus group exported about half of its production worth £152m. The greater proportion of these products went to Commonwealth territories—West and East Africa, South Africa, Australia—plus a proportion to South America, where Leyland has won several large contracts recently. A healthy business has also been built up to Iran, which together

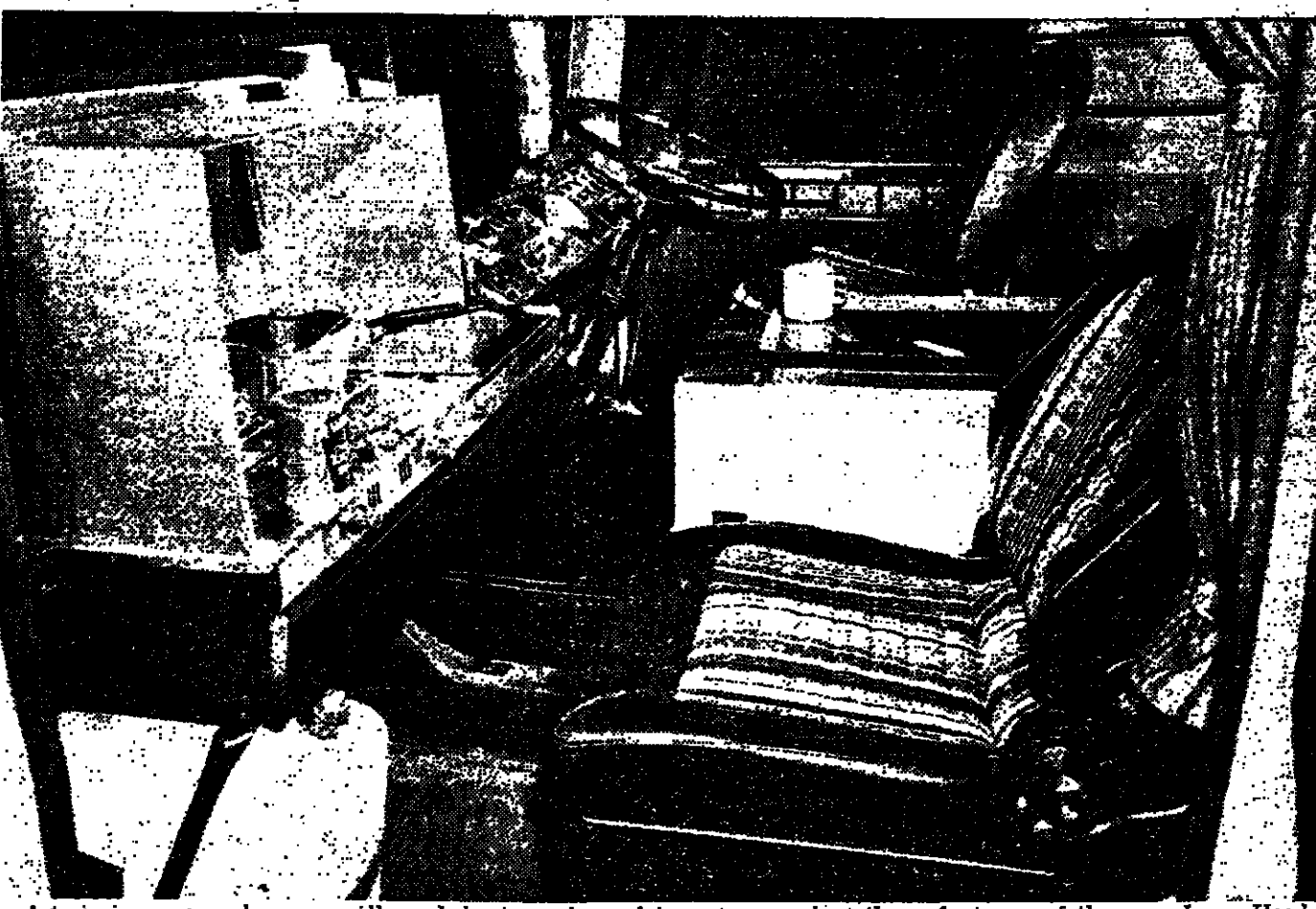
with Turkey has been the only significant Middle East market for the company's goods since it was placed on the Arab boycott in 1988.

Leyland's major competitors in the British commercial vehicle industry have similarly strong links with the Commonwealth. This is particularly true of Bedford, a company which, like Leyland, has a long tradition in commercial vehicles, along with a similar strength in the middle weight products. Bedford also managed to step up exports last year quite considerably, from 31,200 units in 1974 to 38,000.

Entrant

Ford's exports also rose substantially in 1975, although the company is a much newer entrant to the large-scale commercial vehicle business than either British Leyland or Bedford. Its history is partly reflected in its marketing: Ford has made a determined attempt to get its commercial vehicles into Europe, a policy which has met with varying success, although the Transit van has unquestionably made great strides forward in several countries. The main area of Ford's weakness is Germany, a country where the company ought to be able to make progress in view of its long car manufacturing record there and its well-established dealer network.

However, in Germany Ford's policy of "value engineering," which means essentially producing cheaper, shorter-life vehicles, runs head on into the Mercedes concept of durable high initial-cost vehicles, and so far Mercedes has been more than holding its own. The



A two-ring gas cooker, a small wash basin and a refrigerator are just three features of the new Long Haul cab for the Ford Transcontinental.

appointment of Herr Bob Lutz, Leyland. In the Ryder report, EEC has come into being, and former head of Ford in Germany, BL's Truck and Bus group was to add a spur to the development of the kind of sophisticated vehicles which have been seen as a move to add more total European market by 1982, become established on the international trading routes of Europe. The target creates two challenges for Leyland. First, it has to improve its products at the top end; and second, it has to

establish a Europe-wide sales and service network capable of taking on well-established concerns like Mercedes, Iveco and the Scandinavian producers. In terms of product, Leyland has already begun to hit back at European competitors with the development of the Marathon, like Ford, Bedford has benefited from the fact that its parent company, General

to win back sales, most people Motors, has no commercial in the business except that the vehicle manufacturing organisation company will have to do a lot of work on the Continent, and there more development of its products in this range if it is to be integrated into the dealer take on European manufacturers network of Opel, GM's German subsidiary.

The marketing problem facing Leyland in Europe is probably even more acute. At present the company has very limited representation outside the Benelux countries. Yet to become a credible force in the heavy truck business, which basically means selling to international trading operations, Leyland must establish a network of dealers with good service facilities across Europe. International hauliers operating vehicles costing £20,000 and carrying loads often worth just as much, cannot afford to have vehicles laid up through lack of spare parts. To combat this, even medium-sized European companies like DAF have extensive dealer networks, even extending on the long routes into the Middle East opened up since the oil boom created a new market in the Gulf states and Iran.

To a greater extent than Leyland, both Ford and Bedford already have a dealer base on which to work in Europe, derived from their more extensive car operations. In Ford's case the company has also had an appropriate vehicle—the Transit—to graft onto selected car dealerships. The idea has been to expand from this base into heavier products and eventually to the Transcontinental, Ford's new competitor in the heaviest end of the market. European competitors with the development of the Marathon, like Ford, Bedford has benefited from the fact that its parent company, General

Rewards

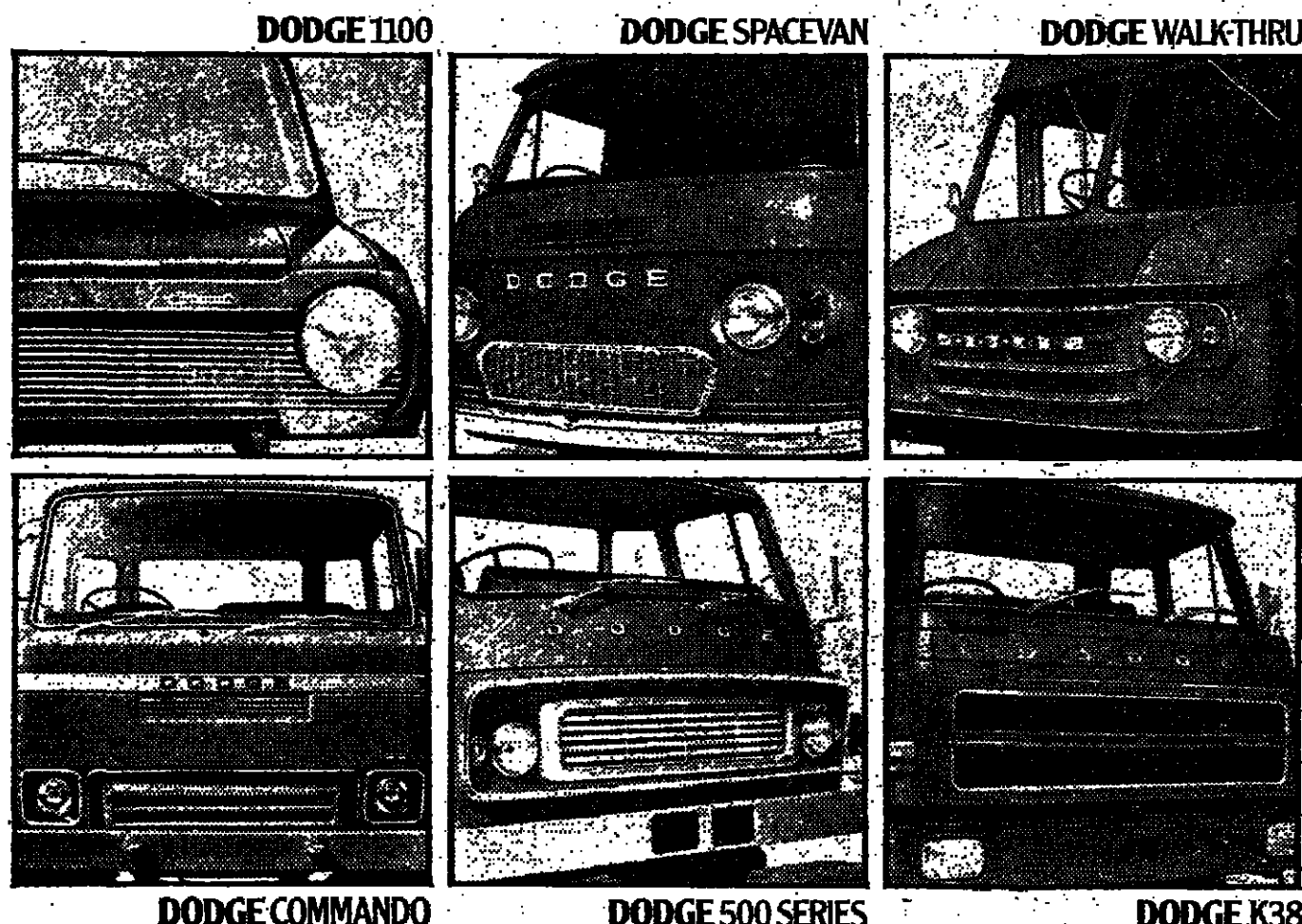
Bedford may also reap significant rewards from the advances now being made by GM in Eastern Europe. The group has recently signed a deal with Bulgaria under which Bedford trucks will be exported in exchange for Bulgarian fork lift vehicles; and the company is also aiming to establish a major link with Poland involving the sale of Bedford technology for a new light truck in exchange for the right to sell the vehicle in certain Western markets.

Europe, embracing the EEC and the Common nations, remains both an opportunity and a challenge to the British industry—a challenge that really has to be taken up if it is to remain in the front of world CV manufacturing. If a reasonably successful sales business in Europe could in the next few years be grafted onto the U.K.'s successes in other parts of the world, the British CV industry would be assured of maintaining its pre-eminent place in the U.K. exporting league.

T.D.

NOW
a lot of very good trucks
change to the great name

DODGE



DODGE COMMANDO

DODGE 500 SERIES

DODGE K38

What's in a name? In the name DODGE there's toughness to excess. Long-lived ruggedness. A reputation recognised by demanding truck operators for 55 solid years—ever since DODGE first became an established British Company.

But it's also a name that is established all over the world. Until today, three other names, equally illustrious, accompanied DODGE in our truck and van ranges. These names identified some of the best payload/quality/value combinations on the British Commercial vehicle market... Characteristics that will remain with interest.

Naturally, we are reluctant to let some of these names pass into history. But good commercial sense dictates one name world-wide.

And the name we're going with is the great name DODGE.

DODGE means world-wide standards of expertise in engineering, production, quality control, service and parts availability—all working to produce even better vans and trucks for our customers.

DODGE, a great name—and a great range.

Under the one name Dodge we offer a range of vans and trucks from 10 cwt payload to 38 tonnes GCW. Our vans include the versatile Dodge 1100 series standard vans, high tops and pick-ups, the Dodge Spacevan with 200 cu. ft. of usable load space and the big 'van-about-town' the Dodge Walk-Thru.

Our truck line up begins with the tremendously successful Dodge Commando 100 series and extends through the Dodge 500 series 2 and 3 axle rigs and tractors, up to the mighty Dodge K38 tractor.

Components sector

THE motor industry is confidently predicting that component contribution has been and is being at the show a prototype of the 44-tonne gross combination weight single drive axle and a cam brake which, it is claimed, can be refitted in two minutes. The transmission division is introducing the 12-speed mechanical transmission that automatically shifts itself when it reaches synchronous speed in a driver-selected gear.

Axles

Chasing it hard is another American multinational, Rockwell International, which through its association with Rubery Owen, the Darlington (Staffs)-based private engineering group, provides most of the trailer axles. Though rather a late starter, Rockwell plans to expand output of heavy-duty driving axles to take a major share of the European market in the over 10-tonnes load capacity and has also invested some £2m. at the Rockwell Maudslay plant at Alcester, near Birmingham, to make a new two-speed axle. Direct exports of axles, now some 5 per cent, are planned to rise to 50 per cent of output before 1980. At the same time production of a new braking system is being co-ordinated in the U.K., France and Germany in a multi-million-dollar programme.

Dominant

The U.K. is already well established as the dominant supplier in Europe of automotive components to the rest of the world, and is steadily impressing the pattern of production here on both established and newer markets. While it is commonplace in other vehicle producing countries for many parts to be made within a group, in the U.K. several of the best-known truck makers design their vehicles around major standard components like engines, axles and braking systems.

While it is true that the biggest producers like British Leyland, Ford, Bedford and Chrysler have their own engine, now power nearly half the U.K.-produced trucks of 32 tons gvw. Americans are also making a big contribution in another important area of production—specialist suppliers, perhaps particularly engines, in order to tailor their products to customers' needs. And assembly from a package of standard components is ideal for developing housing plant was recently commissioned, and from transmission divisions at Manchester and Basingstoke.

These successes owe a good deal to the share being taken by transatlantic companies. In the power field an increasing contribution has been and is being made by American and Canadian-based companies, weight single drive axle and a cam brake which, it is claimed, can be refitted in two minutes. The transmission division is introducing the 12-speed mechanical transmission that automatically shifts itself when it reaches synchronous speed in a driver-selected gear.

CONTINUED ON NEXT PAGE



Dodge Trucks

one great name world-wide



مكرام الدجيل

Environment issue back in the limelight

WORRY ABOUT the noise, vibration and disruption caused by heavy lorries has placed demands upon the commercial vehicle industry over the decade. While considerable improvements have been made, Government's recently published transport policy consultation document makes it clear that much more needs to be done.

It is proposed which it would be difficult for the environment to better the Government identifies the problems created by the growth of road traffic, our cities it results in noise and often hideous visual pollution. It spoils many of our scenic centres. It results in health, personal stress and social damage to the urban fabric. And where heavy lorries are used on residential roads, living conditions for the residents are badly affected. In our smaller towns and villages traffic congestion is an inhuman contrast to the heavy lorries thundering through narrow streets.

Regulations

The document does point out that British regulations on lorry weight, noise, fumes and safe loading are more effective than those of any other member of the European Economic Community, but suggests that more action is necessary.

The various weapons available to central and local government are identified as the road programme, taxation, national vehicle regulations and local traffic measures. The controversial four point plan advocated in the consultation document is serious implications for the manufacturers of commercial vehicles.

First, the Government states that it intends to give more emphasis to environmental considerations when considering

highway plans. Greater priority will be given to schemes which bring significant benefits to the environment, such as by-passes to take traffic away from sensitive and heavily congested areas.

But the proposal which has brought the biggest outcry from the haulage industry is the recommendation that commercial vehicles, especially heavy lorries, should meet not only the resource cost which they impose upon the community but also an additional element to cover environmental costs.

Until the last few years goods vehicles as a whole have contributed substantially more in fuel and licence taxes than the road provision and maintenance costs which could reasonably be allocated to them.

The Department of the Environment maintains that recent estimates show the resource costs arising from lorries—particularly from heavy lorries with few axles—well exceed the taxes levied on their use. Goods vehicles over 3.5 tons gross vehicle weight contributed only about 80 per cent. of the road provision and maintenance costs which could be attributed to them in 1975-76. The Department concedes that estimates of the environmental costs cannot be made with the same degree of confidence but suggests they are likely to be "significant".

One of the suggestions is that vehicle excise duty should be restructured in order to reflect the resource and environmental costs imposed by different types of lorry. Thus, there would be steeper tax increases for heavy lorries, particularly those with few axles and high axle loading which cause disproportionate damage to the roads.

The Department maintains that because demand for road freight appears to be largely price-inelastic, such tax changes would not radically alter the volume of traffic. Bulk traffic over long journeys would have the greatest incentive for switching to rail, while empty

or part-loaded running would be discouraged.

The consultation document acknowledges that freight costs would be raised and the increases ultimately passed on in part to the consumer. "On present estimates the average annual operating costs for all commercial vehicles might eventually rise at the most by 5 per cent., with maximum increases of about 15 per cent. for some of the heaviest vehicles."

To give both the vehicle manufacturers and the haulage industry adequate time to adjust to such changes, it is suggested that tax increases on road freight should be phased over a period. To underline its determination to press ahead with new measures the Government is seeking legislative powers to begin the process of recording data about lorry axes and laden weights.

Undeterred by the hard line of the consultation document, the commercial vehicle industry has again begun to campaign for the raising of the heavy vehicle weight restriction in the U.K. from 32 tons to the 38 tons which is generally accepted within the EEC.

Mr. David Plastow, president of the Society of Motor Manufacturers and Traders, argues that heavier lorries would produce an immediate benefit in cost and environment; congestion would be reduced as fewer vehicles would be needed to carry the same loads.

Similar

Mr. Plastow maintains that the trucks would look no different from present and would still have to comply with similar noise, safety, pollution and other legal requirements. "They are a bonus which Britain is to-day denied—and the lack of a home market for such vehicles also makes Britain's industry less competitive with the big international competitors in the market."

The third point of the action

plan suggested by the consultation document is for further moves to reduce the impact of the heavy lorry on the environment by measures such as strengthening noise and smoke controls, improving the system of vehicle inspection, and seeking to develop, as resources permit, an adequate system of lorry routes to take heavy traffic away from unsuitable roads and residential areas.

The fourth call is for a stronger approach to the control of traffic in towns—bus priority schemes, parking controls and traffic management.

Considerable research and development into ways of combating noise and pollution is already underway within the commercial vehicle industry. A report by the Road Research Laboratory suggested that between 20 and 50 per cent. of the U.K. urban population live in roads with traffic flows which produce noise levels likely to be judged undesirable for residential areas. Unless remedial action is taken the problem can only get worse as the volume of traffic increases.

The extent of the research necessary can be appreciated once it is realised that it is not only the engine that is the cause of roadside noise but also the induction, exhaust and cooling systems as well as the transmission and the tyres.

Strong support for more research into remedies for the environmental problems of the commercial vehicle has come from the State-owned National Freight Corporation. Such a positive approach would be better than imposing "a continuous penal tax on failure," says Sir Daniel Pettit, the chairman.

The corporation argues that the role of the Government should be to stimulate and promote research and development by vehicle manufacturers into methods of reconciling the lorry and the environment.

The heavy vehicle could not

be willing to go away by penalisation but it could be improved by attention to alleviating its noise and pollution effects.

Here we are in the world of design and experiment, and a much bolder and more positive encouragement by Government to manufacturers, suppliers and users of road vehicles is called for."

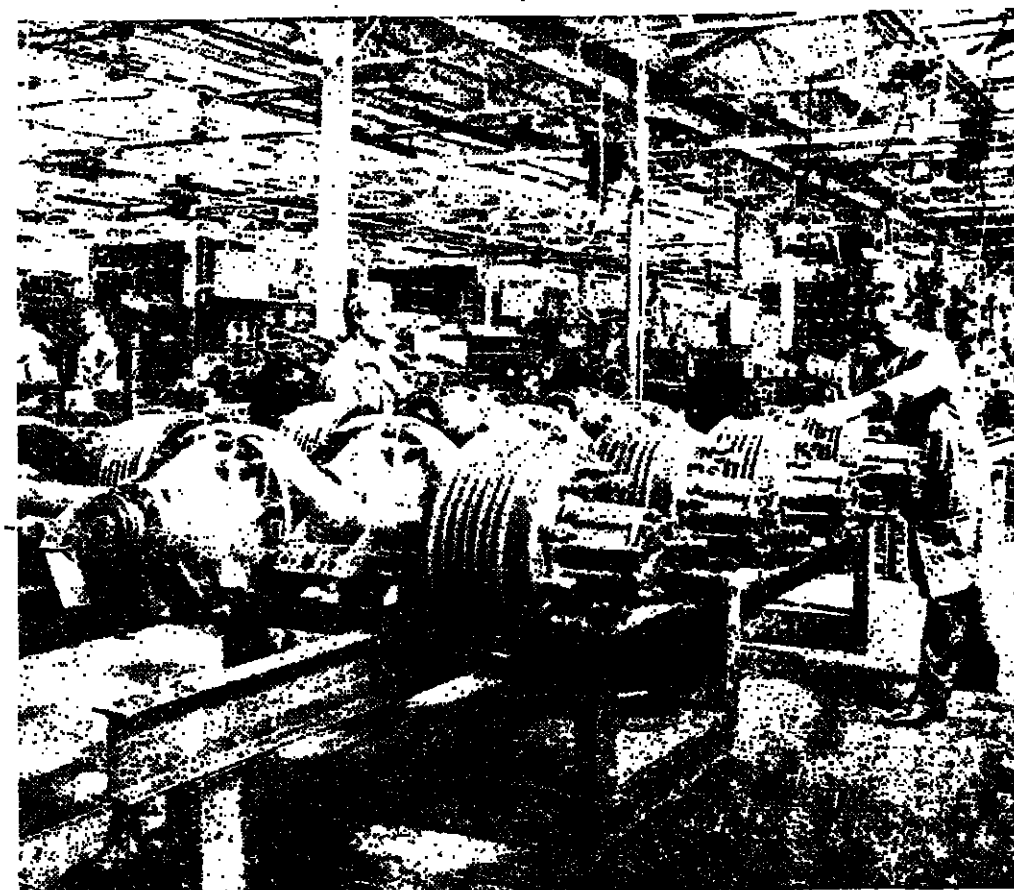
NFC itself has a continuing programme of co-operation with vehicle manufacturers to deal with problems such as engine noise. As an example of such ventures the corporation points to the recent development with Chloride and Chrysler of the Silent Karrier battery-operated urban delivery vehicle.

The consultation document has certainly brought the environment issue back into the centre of debate and thrown into focus the problems which confront the commercial vehicle industry in attempting to raise standards.

The document was originally drawn up while Mr. Anthony Crosland, now the Foreign Secretary, was overseeing the Department of Environment. Since then Mr. Peter Shore has taken over the department and in the latest cabinet shuffle the Prime Minister has split off transport as a separate department headed by a Minister of Cabinet rank, Mr. William Rodgers.

Following the transfer from Mr. Crosland to Mr. Shore the public utterances of Ministers suggested a change in emphasis in the approach to transport issues. It remains to be seen what influence Mr. Rodgers will bring to bear on the final shape of the Government's transport policy. For the commercial vehicle industry, the issues at stake are vital to the business decisions which must be taken over the next few years.

Arthur Smith



An axle assembly line at Rockwell's plant at Alcester, near Birmingham.

Components

CONTINUED FROM PREVIOUS PAGE

Manufacturing, Wolverhampton, which makes gearboxes to go with the rest of the transmissions.

Such developments illustrate the strength and breadth of the American involvement—and its faith in the future of the U.K. component industry. Nevertheless, these operations have tended, until comparatively recently, to be outposts in a wide-ranging empire to be allied to automotive developments in the U.K. by other American companies. And while they have benefited from being able to bring with them a fully developed technology in the transportation of big loads over thousands of miles, British companies are now challenging much more strongly in these chosen areas of the market.

Having established themselves as component suppliers to European and world markets (being much more numerous on the ground on the Continent than Americans) they are pressing ahead with new products, or exploiting available technology

from the Continent or the U.S. to reinforce their enviable position, which yields such good profits in the after market.

Many of the top names in the component industry have already become, or are fast becoming, as well known as household names in the consumer goods field—GKN, for instance, Lucas, Automotive Products, Associated Engineering, Chloride, Ferodo and many others. Lucas, through its associate CAV, is making a massive investment in diesel fuel pumps with the object of becoming one of three world suppliers.

GKN has a somewhat similar aim in the crankshaft market with a multi-million pound investment in highly sophisticated plant, and has already won a \$4m. American contract. An other division has recently started to produce the first key industry.

It is perhaps a little uncharitable to be able to mention only a few of the hundreds of component suppliers who are making substantial contributions to this year's exports of around £1,400m., but at least it helps to underline the successes by a key industry.

exploiting available technology which offer weight savings of

up to 46 lbs over an equivalent steel wheel.

Girling, representing Lucas interests in the brake market, recently introduced a system which it plans to win a third of the estimated £22m. brake market in Europe by 1980. It already has factories in France and Germany which, with U.K. plants, have helped to bring Girling 20 per cent. of the European brake market. In the engine field, despite the fierce competition, Gardner, with its fine reputation for reliability and fuel economy, is regarded as the Rolls-Royce of diesel engines—even though the R-R Eagle range is highly regarded.

Contract

Peter Cartwright

THE NEW FIAT 170. IT DID OVER A MILLION MILES BEFORE IT ARRIVED AT EARL'S COURT



The Fiat 170 has been on the road in Europe for just over a year and has already proved itself reliable over long distances in the toughest conditions.

Now, it's coming to Britain. With a specification to meet UK haulage requirements.

It has a GCW of 38 tons. A 31 metre wheelbase. And a tilt cab for easy access to the 13.8 litre engine.

With 240 bhp, it is well on top of its job for domestic haulage. And there is an option of a V8 engine for TIR operators.

The cab is one of the most comfortable and sophisticated ever built, and is already being talked about over here.

The new Fiat 170 has 73 years of truck engineering experience behind it. And millions of reliable miles ahead of it.

You can see it, and sit in it at the Commercial Motor Show, Stand No. 67.

When you do, we think you'll agree that it's the most exciting truck to arrive in this country for years.

FIAT **IVECO**
Fiat Commercial Vehicles—an IVECO Company

COMMERCIAL VEHICLES VIII

Fuel costs stimulate diesel development

EXPENSIVE FUEL has been part of Britain's economic scene for as long as most people in road transport can remember. It has at least, however, stimulated an obsession about fuel economy which has made Britain a world leader in automotive diesel design. The U.K. is the world's largest producer of diesel engines for direct automotive applications or derivatives from them.

This year should see over 300,000 automotive-style diesel engines exported by the U.K., worth over £175m., plus another £56m. of parts.

Apart from the engines of the chassis producers, Bedford, Ford and Leyland, there is magnificent strength from the engine specialists, Cummins, Gardner, Rolls-Royce and Perkins. Altogether they offer an impressive range of engines from 30 to 350 hp, with character as diverse as the fast 8-litre Cummins and Perkins V8s to the slow 10½-litre in-line six and 14-litre in-line eight of Gardner.

The higher speed diesels, such as the Perkins, are renowned for their low cost and attractive power-to-weight ratio. The reputation of the big, slower diesels from Cummins, Gardner and Rolls-Royce lies in their long life, reliability and excellent fuel economy. These in-line engines regularly cover half-a-million miles (750,000 km) before major overhaul.

All these diesel engines are four-stroke, but this year production started in England of the two-stroke Detroit Diesels of the General Motors Corporation.

These V6 and V8 engines of American design are being supplied mainly for the Bedford TM 32/33-ton trucks, but they are also fitted to British heavy trucks assembled in Australia and Africa.

The current world market for diesels amounts to about 3.3m. units, including car applications. Depending on the expansion of car installations, this market is expected to reach between 7 and 8½m. by 1985. The market leader, Perkins, expects its own output to double its present 511,000 a year. New Perkins plants are starting in the U.S. and France. Factories in West Germany, Brazil, Mexico, Argentina and Peru (with Volvo) are to get further investment. Then there are the engines built under Perkins licence in Korea, Iran, Japan, India, Bulgaria, Greece and Spain.

Bid

Now Perkins is making a bid for the heavy truck market. At this year's Commercial Motor Show, Perkins introduces its new turbocharged TVE640 diesel engine. This 10.5-litre unit considerably extends Perkins power capabilities in the top end of the commercial-vehicle market. With intercooling the engine goes up to 290 hp. This could have far-reaching possibilities for future heavy-truck applications because of its compactness (only 34 ft. long) and saving of over a quarter of a ton compared with in-line engines of similar power.

Even in 215 hp naturally aspirated form the new V8 engine is going to be a force to be reckoned with.

This V8 development could open up again the controversy on the relative merits of vee and in-line. Past experience has been that vee engines give poor reliability and life compared with traditional in-line sixes. Engineering development proceeds apace, however, and the next generation of vee diesels might well be formidable contenders.

Getting vee re-established could be as much an exercise of public relations as of engineering. After all, the Cummins vee diesels made at Darlington are also giving a good account of themselves and are being made at the rate of over 25,000 a year—but nearly all are exported. In the heavy-truck world the main confidence is in in-line engines, of which Cummins make about 9,000, and Rolls-Royce and Gardner about 4,500 each. Output of Rolls-Royce diesels is already increasing to 5,000 a year and Gardner has started a programme to expand output by 30 per cent.

Fuel economy is still a prime source of development on all diesels. Coming on stream are engines with 20 per cent more power yet with better fuel consumption—up to 12 per cent better.

This welcome saving of precious fuel has mainly come about through better appreciation of what can be achieved with turbocharging. Once an engine is fitted with a turbo-

charger (a supercharger which is driven by a turbine in the exhaust stream) the development engineers can play almost any tune. They can just turbocharge without altering the fuel supply. They can alter the speed at which maximum torque, or pulling power, comes in. They can adjust the fuel-consumption pattern to give better economy for whatever sort of operation they want to consider specially.

Help

The engineers have found that today's operations involve a lot of time in the last 10 per cent, or so, of the engine-speed range, but that the work which the engine has to do is, overall, only about 60 per cent of what it is capable; only comparatively rarely is full power needed. So development has gone all out to get better fuel economy on part load.

Turbocharging has been a big help. For example, making an inlet pipe narrower increases the speed of the air going into the engine. That makes the swirl in the combustion chambers more vigorous and that is usually good for efficient fuel mixing—but would

normally restrict the flow, or breathing, at higher speeds. But turbocharging restores the air-flow, and the power—and keeps the exhaust clean too.

One result of this recognition of the significance of part-load fuel consumption is that a high-powered engine can be more economical than one of lower power. The new turbocharged Rolls-Royce 265 hp engine to be seen at the Commercial Motor Show can be more economical than the 220 hp naturally aspirated model. On fast hauls the latest turbocharged 290 hp Cummins can give 91 per cent better fuel consumption than the naturally aspirated 240 hp Cummins.

Both Cummins and Rolls-Royce found they could give an immediate improvement in fuel economy by lopping off the last 200 rpm. So their economy engines are governed at 1,900 rpm instead of 2,100 rpm. It has been a long-standing practice with Gardner diesel engines, which are the most economical in the world. Now the same approach is being introduced by Leyland with its 8-litre fixed-head diesels.

The usual snag with narrowing the speed range in this way is that a gearbox with more and



The fitting shop at Perkins Engines' factory at Peterborough.

closer ratios is needed to maintain the equivalent road performance. Engine makers have avoided such changes to the transmission by stepping up the maximum torque. That way the percentage gap between governed speed and high-torque speed has been kept much the same or better and the same percentage steps in the gearbox retained. The higher torque means that hill-climbing is just as good, with faster gearing in the back axle, as it was before—in fact better.

Irrespective of the power of the engine, a vehicle needs just a certain amount of power to drive it at the chosen speed. On a level road it generally takes between 190 and 225 h.p. to drive a 32-ton articulated (depending on its aerodynamic and transmission efficiencies). That required power stays the same whatever the power of the engine. A 240-h.p. engine may be working quite hard, but a 290-h.p. engine is having a comparatively easy time and it can be giving the required power

for less fuel, because it is on its more economical load bands. The engine makers say they can do even better. They are working on water-jacketing the incoming air so that it is cooled and made more dense. Combustion chambers (which are recessed in the tops of the pistons on diesels) are being made a smoother shape. More precise throttle control is being incorporated in the fuel-injection pumps. And even better turbo-charger matching is on the way.

John Dickson-Simpson

U.S. market integration

FOR A long period after the last war the commercial vehicle industry in the U.S. and Western Europe went their own way. Neither, it seemed, had much to offer the other: the U.S. industry had grown up on the basis of long-distance haulage by heavy vehicles, while the Europeans, dealing with smaller national markets, had less need for the big vehicles of the kind being made in the U.S. But the creation of the EEC has produced a very different situation.

The Common Market brought into being, albeit gradually, a more international trading unit. At the same time the member countries embarked on a trunk road-building programme which spanned the whole of the Continent and began to relax customs methods on the specially designated TIR (Transportation International Routiers) loads. Within the last decade, therefore, the concept of long-distance haulage, as known in the U.S., has begun to emerge in Europe as well.

These developments inevitably attracted the attention of the American-based truck and truck component concerns. While the U.S. commercial vehicle market is still expanding at the top end, the prospects of vigorous growth were much more hopeful in Europe in the middle 1960s. Thus in this period the big multinationals—General Motors, Ford and Chrysler—began to work on the development of their own ranges of heavy vehicles for Europe.

Of these three, Bedford, the Vauxhall subsidiary, was the only company with a substantial reputation in the heavier weight vehicles. The company had become a dominant force in trucks of about 16 tons gross vehicle weight—what today is regarded as the middle sector of the heavy vehicle industry—with a presence both in the U.K. and traditional overseas British markets. Ford's invasion of the U.S. has to-day carried it to the pre-eminent positions Mack, and it too has been

attempting to develop its presence in Europe. Already Mack has established a dealer network on the Continent, and the company is now attempting to do the same in the U.K. But it remains to be seen whether a policy of direct exports of big trucks from the U.S. can succeed.

The other side of the invasion from North America is seen in the component companies. The most significant of these are Cummins (heavy diesel engines), Massey Ferguson (which owns Perkins, the British diesel manufacturers), Eaton (axles and gearboxes), Rockwell (axles) and Dana (gearboxes and axles). All of these have followed the tide of the U.S. vehicle manufacturers, tending to build on their established links with these companies. Indeed, American-controlled companies have been much more willing to develop vehicles based on proprietary parts than most Europeans: the Ford Transcontinental, for example, uses a Cummins engine, an Eaton gearbox, and a Rockwell axle, all parts bought from U.S.-owned, British-based suppliers.

Within the last 12 months U.K. diesel engine suppliers have been reversing the flow of investment by pushing into the U.S. themselves. Perkins, for example, has bought a factory recently, and so has Hawker Siddeley and, more recently, GEC. Much of this investment is aimed at stationary industrial engines; but there is no doubt that the European diesel component manufacturers also see a great opportunity to sell their smaller units in the U.S. now that rising petrol prices are persuading American companies to convert their smaller vehicles from petrol. The opportunity in this sector is open because the U.S. market still remains highly petrol orientated at the lower levels of vehicle weight. Because petrol has been historically cheap in the U.S., and because diesel fuel distribution has been limited to the heavy trucking routes and the coast

states, U.S. operators and manufacturers have been much less influenced by the arguments over the economic considerations in favour of light diesels. But a change of thinking is being investigated the market and already apparent. Oldsmobile, the GM subsidiary, has now similar drive in the future, developed a diesel unit to put there are undoubtedly considerable problems for European-type producers exporting to the U.S., partly associated with the product which has to be adapted for the different running conditions and legislation. The main difficulty in tackling the market, however, is that the U.S. trucking business is organised around much larger fleets of vehicles than in the U.K., and to get into these fleets requires extremely hard selling.

Nevertheless, ten years ago the European manufacturers would not have even been interested in the U.S. It is a measure of the changes that have occurred in the European market, and the convergence of the two industries, that such attempts are now being made.

Mercedes is also one of the European truck producers to have begun to export to the U.S. The Mercedes aim is to increase U.S. sales to about 2,000 units a year, the rate at which the vehicles will be able to make a profit. But the German company has been forced to abandon plans to export from Germany because of the revaluation against the dollar. Instead, Mercedes is supplying the U.S. from its satellite plant in Brazil. Volvo has also begun sales to the U.S., while its Scandinavian rival, Scania, has investigated the market and says that it may attempt a similar drive in the future. There are undoubtedly considerable problems for European-type producers exporting to the U.S., partly associated with the product which has to be adapted for the different running conditions and legislation. The main difficulty in tackling the market, however, is that the U.S. trucking business is organised around much larger fleets of vehicles than in the U.K., and to get into these fleets requires extremely hard selling.

Nevertheless, ten years ago the European manufacturers would not have even been interested in the U.S. It is a measure of the changes that have occurred in the European market, and the convergence of the two industries, that such attempts are now being made.

Mercedes is also one of the European truck producers to have begun to export to the U.S. The Mercedes aim is to increase U.S. sales to about 2,000 units a year, the rate at which the vehicles will be able to make a profit. But the German company has been forced to abandon plans to export from Germany because of the revaluation against the dollar. Instead, Mercedes is supplying the U.S. from its satellite plant in Brazil. Volvo has also begun sales to the U.S., while its Scandinavian rival, Scania, has investigated the market and says that it may attempt a similar drive in the future. There are undoubtedly considerable problems for European-type producers exporting to the U.S., partly associated with the product which has to be adapted for the different running conditions and legislation. The main difficulty in tackling the market, however, is that the U.S. trucking business is organised around much larger fleets of vehicles than in the U.K., and to get into these fleets requires extremely hard selling.

T.D.



VERY GOOD, BUT NOT QUITE THE PART.

In the same way, if you needed spares for your Leyland truck, you would buy Leyland parts. The parts which made up the truck in the first place.

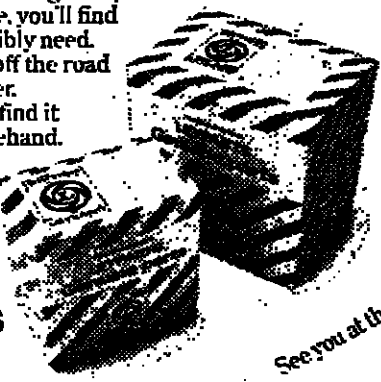
So don't take unnecessary risks. With 120 Leyparts Distribution Centres throughout Britain, you'll never have far to go for parts.

And when you get there, you'll find everything you could possibly need. So you won't have to stay off the road for any length of time either.

In fact, you might even find it practical to stock up beforehand. Then if you do need a replacement you can put it right straight away.

Instead of being hit for six by a breakdown.

Leyparts



See you at the Show Stand 251

In case you can't come to the Show, we've brought the Show to you.

At the last Earls Court event, the Seddon Atkinson prototype 400 was the star of the show. And in the short space of two years, the 400 Series has established itself as Britain's most successful heavy truck range.

Why? Because we've given the truck men what they asked for. We've satisfied the drivers, the fitters and the accountants. What more could an owner want?

Now we've something new and just as attractive in the middle-weight truck market. The 200 Series 16-tonner.

A large truck made smaller, rather than a small truck made larger, the 200 shares the same low, whole-life cost attributes of the 400. You'll find the same design features to meet foreseeable legislation, the same operating economies and the same accessibility for service and repair.

Specification for specification, we think you'll find that both the 200 and the 400 offer exceptional value.

We look forward to seeing you again this year. But if by any chance you have to miss the bright lights and you'd like some facts, we'll gladly send you them.

400 Series
32-ton tractor
with sleeper cab
and 228hp
Cummins
NHC 250 diesel.
Performance
with economy.

400 Series
30-ton tractor
chassis with a
Gardner 6HLX
diesel developing
183.5hp.
Pedigree design
with reduced
whole life costs.

200 Series
16-ton tractor
chassis with
International D-358
diesel engine
developing 134hp.
The quiet,
economical
performer.

200 Series
16-ton tractor
chassis with the
154hp International
D-358 diesel.
Big truck
standards tailored
to medium range
needs.

200 Series
34-ton tractor
chassis for export
only, with Perkins
6 354 diesel
developing 220hp.
The successor to
the successful
13 Four.

400 Series
32-ton tractor with
the new Rolls-Royce
Eagle 265 diesel
developing
256hp.
Turbocharged
efficiency.



With a specification that includes the Gardner 6HLX engine, Lipe-Rollway twin plate clutch, ZF S4-90.4-speed synchromesh gearbox, and power assisted steering, you might expect the Perennine 7 chassis to be successful. It is. Just look at what Commercial Motor had to say about it after their recent operational trial:

"Outstanding fuel consumption was returned by the Seddon on the CM Midlands Test Route. At 21.7 litres per 100 km (13.0 mpg) this was better than either the Ford I14 or the Bedford YMT also tested this year, or the Volvo B58 tested in 1973. On 'A' roads at speeds averaging 56 km/hr (35 mph) the consumption rose to 19.4 litres per 100 km (14.6 mpg). The Seddon coach was easy to handle and gave the driver a feeling of

reliability and solidity...the steady throb of the Gardner engine was also infinitely more relaxing than the high pitched whine of front-mounted turbo units."

Already renowned in world truck markets for its reliability, silence and wide range of usable power, the International D-358 diesel is now winning the admiration of British operators.

The flat torque curve simplifies transmission options and leads to outstanding economy in operation. Servicing is aided by the high level of accessibility beneath the tilt cab on the 200 Series.

And if you can...



SEDDON ATKINSON
Pedigree, Performance, Price.

Seddon Atkinson Vehicles Limited
Woodstock Factory, Oldham OL2 6HP. Telephone: 061-624 0566. Telex: 667398.

COMMERCIAL VEHICLES IX

Leasing much in favour

FILE INFLATION continues to push up the price of new commercial vehicles and operators face difficulties in finding money for re-equipment of fleets, there will be an important role of companies offering leasing facilities.

There is no doubt that the favourable economic conditions of the past two years have been the decisive factor in the leasing amount of leasing which has been transacted. It has provided those companies which need to invest, with the facility to do so without undue burden on their resources.

It is argued that while the use of money has been declining, it is wiser to use whatever funds are available in assets which are likely to appreciate in value, while allowing expenditure on vehicles to be spread over a period, thus reducing the cost.

It is estimated that leasing accounts for nearly 10 per cent of all capital expenditure in the U.K. and its role in the industry where pressures have been against new investment, recognised as a valuable one by both Government and industry alike.

Britain's equipment leasing companies had a record year in 1975, buying new plant worth 40m, and boosting the total stock of leased assets to £1.4bn. The Equipment Leasing Association said earlier this year that its 35 member companies so collected a record £290m. in lease rentals compared with £22m. in the previous year. At the end of 1975 the total number of leased contracts on members' books was 334,000.

Although there has been some improvement of the economy this year, it is confidently expected that these figures will be exceeded this year, but there is some concern about the recent rise in interest rates which could have a dampening effect on transactions. Nevertheless, while companies remain short of working capital, there may be no alternative but to accept less favourable rates.

Vehicle leasing and rental is one of the largest sectors of hiring in the country, perhaps as a result of the relatively short useful life of a vehicle. It is also eminently suitable for this type of financing due to the industry's sensitivity to changes in demand for goods and the need for operators to maintain a high degree of flexibility.

To this end "service leases" have emerged as one of the most popular contracts, under which the financial aspects of the deal are supplemented by management services, spares, replacement vehicles and facilities which allow the vehicle to be operated at fixed costs with minimum risk to the operator.

Terms

The four major clearing banks all have large leasing subsidiaries as do the merchant banks and finance houses. There are also a number of specialist leasing concerns which are able to offer highly specialised services when necessary.

There is little to really distinguish one company's basic terms from another, because they are all bound by the same constraints of minimum lending rate, but each can often offer deals tailored to the requirements of the operator.

Smaller companies are perhaps best suited for the two main forms of vehicle hire. They can take advantage of this source of very competitive additional funds, created largely by the economies of scale generated by finance companies.

A hiring contract could be described as the equivalent of a medium-term loan, secured on the vehicle, allowing hidden gearing without the need to create extra charges on existing assets. At the same time capital is released and can be diverted to other expanding parts of the business.

As for discounts normally associated with outright purchase, the small company can capture these through the medium of the finance com-

pany, providing that the hirer does not take such savings into cost and profit. The revenue aspects of repayment are obviously important and in this respect tax rebates on purchase can vary considerably, while hire payments are a business expense.

In its most basic form leasing is an agreement under which the lessor, in most cases a finance company, leases the vehicle in question to the lessee at a predetermined rate. At no time does the lessor lose title to the vehicle and when the contract is terminated, the lessee returns the vehicle to the lessor.

Under "open ended" leasing, for instance, a contract may be written over a period of perhaps four years and is written off on that basis. If the operator cancels beyond a certain minimum period, the vehicle may be bought at a pre-determined price.

In some agreements the lessee may receive a credit, perhaps in the form of a down-payment on his next lease and in others there is no participation where, for example, a vehicle has been written off over a "primary" period, and the operator continues to pay a nominal rent over the secondary period.

A closed end lease is the same as contract hire, without maintenance. Under contract hire the operator acquires his vehicle, again for a pre-determined period and rate, but including maintenance and tyres, tax and replacement vehicle, should the original be off the road for more than 48 hours.

The important factor about the lessor continuing to retain ownership of goods although he is not using them means that he can claim the capital allowances and grants accruing to a particular piece of equipment and can reflect these in lower rentals where possible.

On the other hand, the lessee has no allowances or grants and has to enter this into his equation of the cost of the lease. Under the U.K. tax system, with 100 per cent first year allow-

ances on capital expenditure, the ideal leasing situation is one in which the leasing company has plenty of spare money and taxable profits while the lessee is short of cash and has no profits (although hopes to earn them).

In these circumstances the tax allowance rich lessor can make his financial resources available while also gaining the benefits of allowances set off against his profits, as well as any grants. The lessee can gain the advantage of tax allowances reflected in the lower rentals he is expected to pay. The tax aspect seems to have been stressed recently due to the amount of capital cover which has disappeared along with profits.

Lorne Barling



The new DAF 56 ton truck.

ro/ro services being offered across the Mediterranean.

The TIR carnet, the internationally accepted customs document, has done much to simplify and therefore encourage longer haul journeys. Under a convention drawn up in Geneva in 1959 and subsequently ratified by most European countries, the international carriage of goods is facilitated merely by simplifying customs requirements.

Approved vehicles and containers are sealed after examination at the customs office of departure and need not be inspected again until customs at the final destination. The carnet also serves as a bond, guaranteed by the issuing organisation and thus exempting the operator from payment or deposit of duties which would otherwise be levied in transit countries.

Documents

For journeys between EEC member States the TIR has been replaced by what is called the Community Transit System, which can serve both to identify goods entitled to reduced import duties and avoid the need for separate national transit procedures for each country.

Two classes of documents and procedures may be used under the Community system. The movement certificate can be employed where goods pass directly from the country of export to the importing nation, crossing only one internal frontier on the way. But the full transit procedure has to be used where more than one internal Community frontier has to be crossed or where goods are subject to control of their use or destination. This system is now available for journeys starting and ending within the EEC, Austria and Switzerland.

Proposals are now under consideration within the European Commission to simplify the system still further to remove some of the documentation and thereby help lower customs barriers.

One idea is that transit documentation for goods in free circulation after the transitional period should be abolished along with the transit advice note.

The possibility of establishing Community rules on sealing vehicles in order to ease movement within the EEC is also under consideration. Documents used for such transport could be standardised. The aim of all the proposed improvements is to speed up customs clearance and prevent costly delays to goods.

Arthur Smith

International travel

LONG HAUL international freight journeys, particularly the overland run to the Middle East, have placed new demands upon the commercial vehicle manufacturers. Lorries have had to be redesigned to meet the extremes of temperature, and adverse road and travel conditions met on journeys which take days rather than hours.

The gruelling conditions imposed upon drivers have brought calls for refinements to the cab, many of which now offer the sort of facilities usually found in a holiday caravan. In addition to sleeping berths there is space for washing, and for cooking and storing food.

The Society of Motor Manufacturers and Traders points out that a whole new standard of heavy trucks has been developed for the Middle East run. "Well over 100 gallons of fuel, has to be carried because filling stations are few and far between. The springs have to be soft enough to give as reasonably comfortable a ride as possible over rough, steeply cambered tracks—and yet strong enough

not to break. There has to be plenty of room for emergency equipment such as snow chains and towing equipment. Tyres need to be extra heavy duty."

But the key to success in such markets rests largely upon the reliability of vehicles. Break-downs on remote routes will at best result in delay and in all probability theft and extensive damage. The sophisticated trucks now in use may cost upwards of £15,000 and this ignores the value of cargo which for the Middle East might be expensive capital equipment.

With so much money tied up in transporting ventures it is important that any delay is kept to the minimum. Speed, availability of spare parts and quick repairs will often swing the haulier in favour of a particular vehicle. Recognising this, most major European facilities and consequent harbour congestion means that overland routes will be that much more important.

There is nevertheless keen competition from companies, such as Seaspeed Ferries, pre-

pared to push to the limit the advantages which sea travel may have over land: a Felixstowe to Jeddah service offered by Seaspeed gives direct access to Saudi Arabia.

The popular overland route from the U.K. involves a short ferry passage to the Continent and then a road and/or rail journey across Europe to Turkey and beyond. The rapid growth of roll-on/roll-off traffic has been encouraged by the relaxation of traditional customs barriers and regulations throughout the EEC and EFTA.

Reports

There have been reports that the early boom in journeys to the Middle East has eased off but there can be no doubt that this will remain an important long term trade for Western Europe. The Middle East is probably the fastest growing trade bloc in the world to-day and the lack of modern port facilities and consequent harbour congestion means that overland routes will be that much more important.

There is nevertheless keen competition from companies, such as Seaspeed Ferries, pre-

pared to push to the limit the advantages which sea travel may have over land: a Felixstowe to Jeddah service offered by Seaspeed gives direct access to Saudi Arabia.

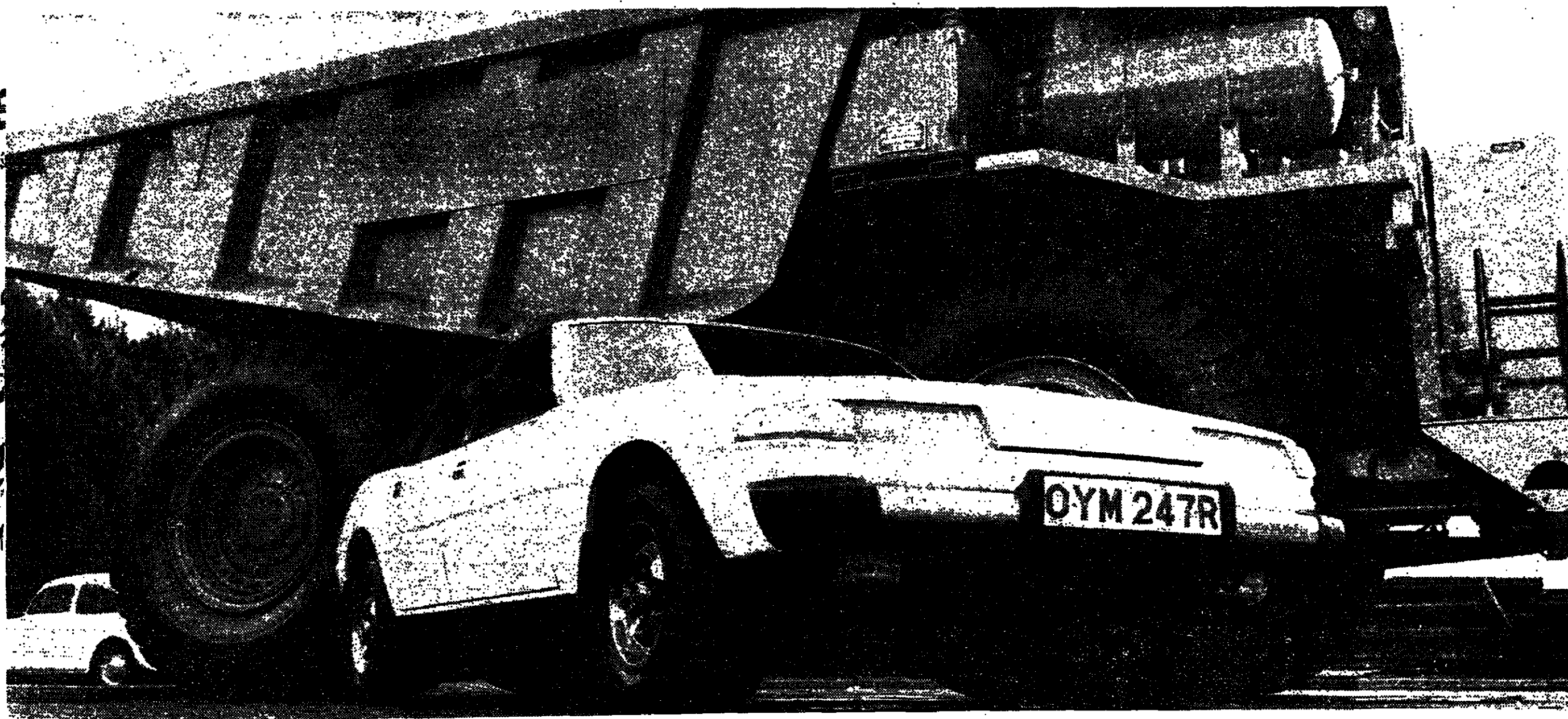
The popular overland route from the U.K. involves a short ferry passage to the Continent and then a road and/or rail journey across Europe to Turkey and beyond. The rapid growth of roll-on/roll-off traffic has been encouraged by the relaxation of traditional customs barriers and regulations throughout the EEC and EFTA.

One idea is that transit documentation for goods in free circulation after the transitional period should be abolished along with the transit advice note.

The possibility of establishing Community rules on sealing vehicles in order to ease movement within the EEC is also under consideration. Documents used for such transport could be standardised. The aim of all the proposed improvements is to speed up customs clearance and prevent costly delays to goods.

Arthur Smith

Nothing is too big.....or too small for Smiths Industries.



Whether it's a 50 tonner or a saloon car, you can expect Smiths Industries to have been significantly involved.

Continuous technological development in vehicle instrumentation has resulted in a wide range of precision instrumentation systems. These are suitable to the varying environments of rugged construction equipment through commercial vehicles to the sophistication and

luxury of cars like the new Rover 3500.

Smiths Industries supply heating, de-misting and ventilation equipment for a vast range of cars and commercial vehicles.

They are involved in design and manufacture of the very latest Air Conditioning equipment and Air moving devices, for engine cooling, as well as marketing Webasto oil burning air and water heaters.

Tudor Accessories Ltd. — A subsidiary of Smiths Industries is responsible for designing, developing and supplying as original equipment, manual and electric windscreen washing units to car and commercial vehicles.

Smiths Industries also provide a wide and comprehensive range of motoring accessories, amongst these is Bluecol. Bluecol is Britain's biggest selling anti-freeze and endorsed by

leading motor manufacturers such as British Leyland.

Together the Vehicle Equipment businesses of Smiths Industries are playing a major role in providing vital equipment to the majority of commercial vehicle and car manufacturers in Europe today, whilst researching into tomorrow's problems. Nothing is too big or too small for Smiths Industries.

VEHICLE EQUIPMENT BY SMITHS INDUSTRIES



Cricklewood, London NW2 7JB.

COMMERCIAL VEHICLES X

Companies choose Lombard for Whelease for the same reason they choose their cars.

Reliability.

Because with Whelease you can forecast your transport costs more reliably. You pay an agreed rental for your vehicles which can include such operating costs as vehicle licences and maintenance.

You have greater control over your annual costs. And you can maintain your working capital. In these days control of overheads is worth serious consideration. So ask for Ian Pringle at Lombard North Central.

Lombard North Central

Whelease Limited

2 Purley Way, Croydon CR9 3BL. Tel: 01-884 6911. Or contact any of our Regional Offices at Birmingham, Brighton, Bristol, London, Manchester and Rotherham, or any of our 110 Branches throughout Great Britain. We are in your telephone directory.

A member of the National Westminster Bank Group

Bewildering variety at the heavy end

THE MOST important sector of the commercial vehicle industry embraces all the trucks in the 3.5 tons gross vehicle weight category and above. Numerically, these products account for only about one-third of the market, car-derived vans and small commercials like the Ford Transit covering the rest. But it is the heavier vehicles that generate the most turnover, and—at least in good times—the best profit margins. In addition, it is among the flagships in this sector, the really heavy articulated trucks designed for TIR long-distance haulage, that the main glamour and mystique of the industry lies.

Clearly, however, the heavy sector defined by this crude weight measure takes in a bewildering variety and range of products. At the bottom end it embraces the short-haul suburban delivery vehicles; in the middle it takes in medium-distance distribution truck and a variety of off-road and specialised construction work vehicles; while at the top end of the weight range it involves sophisticated articulated vehicles.

Each of these smaller segments of the 3.5 ton and over sector has suffered from the decline of the market during the last two years—a slump which has taken the 30,000 sales in the boom year of 1973 all the way down to and expected 57,000 this year. But some segments have suffered more than most, most notably the area taking in the prestige

articulated vehicles. These trucks (known confusingly as "tractors" in the industry because they operate, like agricultural tractors, through a drawbar) shot up to 17,000 sales a year in their peak period of 1973. From there registrations plummeted to 10,000 in 1975. They are expected to rise marginally this year to about 12,000 units, and in 1977 may well get back to 1973 levels.

Sales of three axle vehicles used for rugged tipper work have also been hit hard by the slump. Although these trucks account for only a small percentage of the total market—about 7 per cent, in an average year—registrations fell from a height of 5,800 in 1973 to only 3,500 last year.

Climb

The area of business which has resisted the downturn most effectively is for two-axle urban distribution vehicles, which account for by far the largest number of sales in the truck market. Back in 1973 these vehicles ran up about 55,000 registrations, and although this figure slipped back to 40,000 in 1974, sales have stayed steady since then and appear to be beginning to climb once more. Some dealers believe that registrations of 56,000 to 57,000 could be possible in this sector next year, taking sales back to the 1973 level.

The great strength of this distribution vehicle sector is that it caters for more or less

essential services that are the very last to suffer during an industrial downturn. Food and clothing distribution remain necessary, along with all the other complex urban services, and although operators may delay replacing vehicles as much as possible, there will not be the same lay-up factor as in the long-distance heavy vehicles, or in construction equipment. Events like the recently announced cuts in the road-building programme have an immediate impact on sales of more specialised vehicles.

One of the most difficult factors to define in the heavy truck business is the impact of legislation. For example, one noticeable trend recently has been towards very lightweight rigid vehicles like the Leyland Octopus in preference to articulated vehicles.

This is a vehicle which has benefited from the protracted delay in introducing higher vehicle weights. For although the maximum allowable weight for rigid is 30 tons against 32 tons for articulated vehicles, a lightly-constructed truck like the Octopus can carry virtually the same payload of around 21 tons. It also has the advantage of having two fewer wheels, and has much improved stability, a big bonus in operating in the north of Britain during the winter. Leyland introduced the Octopus only a year ago and has had considerable success with it.

Where the legislative confusion is greatest, however, is in the heavy articulated sector. For several years now, operators have believed that it was only a question of time before the Government fell into line and hoisted maximum allowable weights to meet European standards. Although, as yet, there is no universal European agreement on this score, it is true that a heavy vehicle can operate nearly anywhere on the Continent at 38 tons gross vehicle weight; the big exception within the EEC is Britain, and in some countries vehicles can carry even heavier loads.

The problem this poses for the operator is to decide what type of vehicle he should buy. He could, on the one hand, opt for a premium-priced vehicle capable of carrying 38 tons in the hope that the weight restrictions will be raised soon enough for him to get some use out of it at the heavier weight. On the other hand, he could buy a cheaper 32-ton vehicle to conform to present regulations and risk the exposure to more uneconomic running costs if the weight limits are raised before it is worn out.

The dilemma is particularly acute for operators engaged in substantial work both within the U.K. and on international business. The extra weight useful to have the extra weight for the Continental work, where the operator may be in a position to pick up loads at the higher limit. But this has to be balanced against the higher cost of operating a more expensive and heavier vehicle within Britain itself.

Difficulty

The problem is equally pertinent for the British manufacturers. Like the operators, they are faced with dual requirements—designing vehicles which are both appropriate to home and overseas consumption. The difficulty is graphically illustrated by Ford's attempts to break into the heavy articulated goods market with its Transcontinental vehicle, a wholly new design launched last year.

Ford decided to make the Transcontinental in Amsterdam, mainly, it says, because it had available manufacturing facilities there. But there is also some indication that the manufacturing decision was governed by the even more important decision that the design should be aimed at a more general European weight range than the standards reigning in Britain. The result is that the Transcon-

tinental, a heavy vehicle, is very heavy for internal British requirements.

Because of prevarication of heavier vehicle weights, Britain, the U.K. manufacturer were slower off the mark in a sector of the market than the European competitors. It is in the past 18 months that they have begun to catch up with new models, and it is probable to say that Continental manufacturers still have a slight edge. British Leyland, for instance, engineered its Marathon, its contender in this sector of the market, with an ingenious balance of old and new and would clearly like to improve features such as a cab.

If the British Government were to give way and lift heavy vehicle weights to 38 tons, would this help? It would unquestionably help domestic manufacturers in their fight against the European competition. Given that the Government is injecting £380m. into Leyland Truck and Bus through the National Enterprise Board, it would seem natural that it would listen to the pleas of the industry. But the environmental doubts about heavy vehicles and the consequent demands on the road system remain, and the former Minister of Transport, Dr. John Gilbert, seemed firmly against tampering with the present system.

His successor, Mr. William Rodgers, may be persuaded to think again. Certainly, he will be coming under early pressure to do so. The industry, under the guidance of the Society of Motor Manufacturers and Traders, has already begun a new campaign to change the law and is pressing home its message that heavier trucks will not mean bigger or noisier vehicles. The next 12 months could see interesting developments in the heavy vehicle industry.

TD

THE NEW LIGHT TRUCK FROM VOLKSWAGEN. TO HELP YOU ECONOMISE, IT'S GOT TWO ENGINES.



One is petrol. The other is diesel, and new to our LT range.

Its five years of research and design have given it a particularly generous 25 m.p.g.

A powerful 2.7 litres. High torque at low revs.

And 65 b.h.p.

It has also prompted Eric Willoughby of Motor Transport to call it 'the quietest diesel-powered vehicle I have ever driven'.

This is not to say our petrol engine isn't equally impressive.

It 2 litre overhead cam develops 75 b.h.p. and returns a profit-conscious 23.9 m.p.g.

Both engines, by the way, are up front and water-cooled.

Other features they have in common are a 10,000 mile or 12 month warranty.

A 10,000 mile major service interval. And, of course, the reliability you'd expect from Volkswagen.

Engines, however, aren't your only option.

Besides the panel van you see above, there's our chassis cab.

They come in three nominal payloads (depending, of course, on body weight).

LT28, 1.5 tons. LT31, 1.75 tons. LT35, 2 tons. And the latter has a choice of wheelbases, 2.5 m or 2.95 m.

Now all you have to do is decide which combination of engine, wheelbase and payload is best suited to your business.

If you need a little help call into any one of our 120 specialist Truck Dealers.

They'll give you a test drive and the opportunity to appreciate some of the

LT's other features.

Like cab comfort. And safety.

Two things we'd never economise on.

Please send more information on the new Volkswagen LT range.

Name

Address

Postcode

Type of Business

Volkswagen (GB) Limited Truck Sales
Department Volkswagen House,
Brighton Road, Purley, Surrey.
Telephone 01-688 4100.



The new Volkswagen LT.

Wide spread of specialists

THE 70 or so companies exhibiting in the body work and trailer section at the Commercial Motor Show indicates the wide spread of specialisation even more than it does the potential for rationalisation in an industry that more than most has grown up through relatively small family units, and which, except for a handful, has tended to cater for local and regional requirements rather than for national and international markets.

There is a world of difference between the coach builder and the tanker specialist, between the builder of multi-wheel low loaders and container trailers. Of course, they have common interests in what the market is doing and this year are likely to be a good deal more cheerful than they have been for some time. In 1974 before the oil crisis had bitten deeply, the trailer market was estimated to be around 27,000 units and suppliers were still riding high. They crashed the following year to not many more than 7,000, but this year are beginning to get the air back in their tyres and looking towards the 20,000 mark.

Cylinders

Among the early specialists were those providing refrigerated vehicles which help to keep meat in condition from the farm in New Zealand to the local butcher, and refrigerated vans have become an integral part of food-transport, with gas cylinders beginning to take over from separate diesel engines to maintain temperatures. Delivery from the docks is most likely to be in the biggest possible vehicles with 40 feet trailers coupled to the tractor unit. Two or three smaller vans complete deliveries from a central depot. In the constant battle to save weight—and costs—some manufacturers are dispensing with a chassis, and while an insulated body is stiff, it requires high engineering skills to combine structural strength with the high thermal efficiency required.

Frame members can become heat conducting paths, and this year's show will demonstrate a British version of sandwich wall construction in which there are

no pillars, and which seeks to improve on, rather than just emulate Continental practice. Nowadays the degree to which refrigeration, or insulation is needed depends on what is being carried: vegetables or fish require only chilling, and thus extend the sophistication of these special purpose vehicles.

As indicated, the trend where ever possible is to make trailer vehicles rather than trucks and to dispense with chassis in the interests of weight saving. With safety regulations becoming stricter and drivers much more aware of the need to obey them and also carry out common sense security precautions without, however, making the time spent on them irksome, there is a strong move in general goods carrying for the trailer to be a platform with a canopy around which stout sheeting can be drawn quickly. And where pallets are concerned some novel devices have appeared for anchoring them and for unloading at the sides by fork-truck as well as at the ends.

Since trailers are likely to be expected to have a life of anything from eight to fourteen years, manufacturers have to be aware of possible future legislation, especially that connected with weight. In most European countries lorries are allowed to gross 38 tons or more compared with 32 tons in the U.K., and since Continental journeys are increasing they are generally built to the higher specifications. The trucking industry, indeed, has been campaigning ever more strongly to be brought into line with the rest of Europe, and argues that the appearance of the lorry would not change but moving the same tonnage of goods would require 20 per cent. fewer of them. And because builders have also to take into consideration the time that drivers have to spend away from home—for instance, in serving the oil-rich markets of the Middle East—they have to pay increasing attention to sleeper cabs and the creature comforts they contain.

To ally a modern sleeper cab with a 40 ft trailer may well exceed the permitted length in this country of 15 metres, and is another example of the law lagging behind general European practice. The show is likely to include some quite exotic—and very expensive—cabs, one of which at least will be, it is claimed, the first standard aluminium cab from Motor Panels, the Coventry subsidiary of Rubery Owen which has been a pioneer in cab production.

Builders

Among a wide range of other specialised vehicles are many different kinds of tankers carrying liquid gases, oil products, flour, sugar, cement and a host of other materials the carriage of which has increasingly demanded specialist knowledge and skills on the part of builders, who to a growing extent have become identified to particular areas of transport. Allied to many of these tankers are pump, filtration, suction and safety engineering devices and equipment again produced by specialist companies. There are obvious differences in techniques between transporting cement and liquid petroleum gas, and to specialists there is also a big difference in techniques for transporting different kinds of chemicals and other hazardous loads. There was a sharp reminder of the potential dangers only the other day when a petrol tanker overturned and exploded, devastating the centre of a village. The greater degree of safety in which such loads are carried depends vitally on the specialists—much less on legislation—and it is a mark of the way in which they are enhancing techniques that accidents like that are so isolated.

Specialisation has also long ago spread into another area, the off-road civil engineering and construction equipment, which just now is feeling the effects of the cutback in investment in road construction and building. Here the state of the art owes a great deal to the engine builders and hydraulic equipment makers whose products have to work in a hostile environment of mud and dust in conditions as varied as those to be found in the deserts of

CONTINUED ON NEXT PAGE

COMMERCIAL VEHICLES XI

Keeping an eye on the foreign models

THE LAST YEAR to 18 months has seen a period of product consolidation in the British truck market. This relatively placid phase follows the flurry of activity which produced new heavyweights from Ford, Bedford and Seddon Atkinson last year, a range which is now being filled out and adjusted as the trucks get some service history behind them. But at the same time there has been continuing activity from the importers in their attempts to break into what is reckoned to be the largest commercial vehicle market in Europe.

These incursions by the importers mark a notable change of emphasis away from the heavy end of the business. It is, of course, in the heavy sector that the most positive impact has been made by overseas manufacturers in recent years. But sales of large articulated vehicles have gone into a spiralling decline over the last two-and-a-half years, leaving many importers in severe financial trouble, and eager to supplement their ranges with other products. In this context, the fact that Britain is acknowledged to use more middle-weight vehicles than any country in the rest of Europe is clearly significant.

Intriguing

One of the most intriguing of these new entries into the British market is the 14-ton Roman truck which is made in Romania under licence from MAN, the German company. In all basic essentials, the vehicle looks as though it could have been constructed in the German plant, but like many other East European products brought in to the West it has a significant price advantage over its Western equivalents. Indeed, the MAN concessionaires in the U.K. have decided to market this machine in preference to the German product precisely because of this price advantage; following sterling devaluation the German vehicle would have been hopelessly uneconomic, the concessionaires believe.

There is no doubt that the truck industry is watching the Roman experiment very closely. There is considerable anxiety that a growing number of sales in the future years could be siphoned off to cheaply priced competition from the Comecon

Mercedes is, however, another

company that has been gradually expanding its U.K. range.

Recently it has introduced its 16-ton version of its "new generation" range — a vehicle which uses basically the same cab as its heavier counterpart — and it has been placing more emphasis in Britain on its so-called Dusseldorf range of vans.

Flat, emerging on the Continent as the major rival to Mercedes' pre-eminence, is also extending its U.K. range with a new 16-ton truck, a vehicle which, like the Mercedes, is part of a range going up to the heaviest sector.

Range

The development of the Fiat and Mercedes business in Britain indicates two features about truck design policy to-day. First, companies are working towards products which have much more commonality of parts. The Mercedes new generation cab is a case in point; and in Britain, the Bedford TM cab shows all the signs of being equally versatile, capable of being used right through the range from 16 tons to 44 tons.

Secondly, more and more concerns are setting out to have a more complete range with which to tackle the market. DAF, for example, has been so preoccupied with its recent internal and financial troubles that it has neglected development work on the truck, and, therefore, Saviem, the French manufacturer, is the first to show how effective the challenge will be. Its truck will come in 9, 11 and 13 ton variants, and the company is aiming to sell it as a premium price, high specification product.

It will be interesting to see how this marketing strategy works, since the premium product policy has not so far been notably successful in the U.K. Mercedes, for instance, has had a hard struggle to establish itself on these grounds, despite its strength on the Continent as a manufacturer that makes durable, if high-priced machines. The strides that Mercedes has been making more recently in the U.K. have been accompanied, say dealers, by a considerable relaxation of the premium pricing policies, as the company has fought to establish its foothold by competitive offers to operators.

Mercedes is, however, another

company that has been gradually expanding its U.K. range. Recently it has introduced its 16-ton version of its "new generation" range — a vehicle which uses basically the same cab as its heavier counterpart — and it has been placing more emphasis in Britain on its so-called Dusseldorf range of vans.

Flat, emerging on the Continent as the major rival to Mercedes' pre-eminence, is also extending its U.K. range with a new 16-ton truck, a vehicle which, like the Mercedes, is part of a range going up to the heaviest sector.

Peugeot and Renault will also be displaying light commercials at the London CV show for the first time in recent years, but it is the Japanese manufacturers who have really caught the attention. Honda is to have a new small van on display, of which more than 3,000 are said to have already been ordered by dealers — a response to its £1,149 price tag, and its proclaimed yield of about 50 mpg in town work. Toyota is to show

its 1-ton pick up, the Hi-Lux, powered by a 1.6 litre engine, and is also introducing its Corolla 9 cwt van.

Two Japanese vehicles which are not on display, but which have nevertheless caused a great deal of debate in the industry recently, are the Datsun pick-up and a new Hino heavy truck. The Datsun vehicle, which was only introduced late last year, has made its mark rapidly in the market, with sales of well over 2,000 already this year. Hino is establishing a heavy truck assembly operation in Ireland and is believed to be aiming to import its vehicles at an extremely competitive price.

None of these developments can cause any comfort to the British manufacturers, who have already watched great slices of their domestic car market eroded by imports. The new products that are coming in from overseas are now becoming so numerous that it is not easy to stem the tide, and it certainly seems true that the heavy competition involved has caused some severe price cutting. The hope of the domestic industry must be that British Leyland can now put some strong investment and effort behind its development of new products, and that Chrysler can also push ahead with its Government-sponsored new model programme.

T.D.

Select your chassis. Choose your body. Come to Lombard for leasing.

You know your vehicle needs; Lombard can resolve your cash-flow problems and can offer the most comprehensive leasing package on the market. You pay a fixed rental for your trucks and can forecast your transport costs accurately.

Have the comforting knowledge that you are in business with a nation-wide organization and a member of the National Westminster Bank Group. So ask for Ian Pringle at Lombard North Central.

Lombard North Central
Leasing Limited

2 Purley Way, Croydon CR9 3BL. Tel: 01-651 6811. Or contact any of our Regional Offices at Birmingham, Brighton, Bristol, London, Manchester and Rotherham, or any of our 110 Branches throughout Great Britain. We are in your telephone directory.

How to clock 30mpg around the houses.

When you're delivering around the houses, particularly when you're operating a fleet, you can waste a lot of time round at the petrol station. Not so with the Mercedes-Benz L206/306D range.

For a start they're diesels. So you automatically save fuel when you're idling. And as much as 30mpg is commonplace.

Then, since they are diesels, our vans are low on maintenance costs. Every van is backed with a 62,000 mile long guarantee.* To guarantee you a long, trouble-free life.

And people who tell you diesels are noisy, haven't heard ours. They're quiet, smooth and beautifully responsive.

Good Service.
Our high quality construction and design gives you maximum profit with the minimum time off the road.

However, should you need to replace a part, our dealers are well equipped to help you. And if the part you need isn't in stock soon will be. Every dealer has the backing of high-speed deliveries from our warehouse.

What you pay now, pays off later.
You can get all the quality of a Mercedes-Benz for much the same price as an ordinary van.

But when you add up all the extras that are standard on our vans — like a passenger seat, a deluxe trim, side loading door and a high gloss factory finish — figure out your fuel consumption and work out how much your down-time has gone down, you'll see why we make long-term economic sense.

Vans in all shapes and sizes.

Our front wheel drive transporters come in two gross weights: 2.8 and 3.4 tons.

If you need more weight, our complete transporter range of 40 vans goes up to 6.4 tons.

Or if you'd rather have your own body built on, we'll supply the chassis cab to match.

Whichever van you choose you'll find few to match its performance for clocking up the miles and the miles per gallon.

For your nearest dealer, simply fill out the coupon. He could be just around the corner.



FT/27/9-V

Mercedes-Benz (United Kingdom) Limited,
P.O. Box 753, London SE1 5JZ
Please send details of the Mercedes-Benz van range.

Name _____
Company _____
Business _____
Address _____

Tel. _____
Mercedes-Benz
The way every truck should be built.



*The Mercedes-Benz transporter guarantee covers the engine, gearbox and drive units for 62,000 miles or 12 months and the body and chassis for 31,250 miles or 12 months, subject to normal warranty conditions.

Specialists

CONTINUED FROM PREVIOUS PAGE

the Middle East or the deltas of India.

The development of the motorway system and other large-scale projects like open cast coal and iron mining called for a size of equipment that British builders were unfamiliar with and much of the technology had to be brought in from America. The learning has not all been one way, however. As is so often the case where there is an interchange of technologies much useful knowledge and development work has been passed back to the licensors.

Survival

Specialisation has also been a form of survival—or expansion, as witness the recent upsurge in vehicles for dealing with the problems of industrial and human effluent. On the other hand the process of rationalisation has been particularly noticeable over the past decade and a half in the commercial vehicle field. In that time some 50 truck builders have been compressed into under a dozen of significant size, with the four top ones, which include British Leyland and Ford, accounting for all but a few per cent. of output of the most popular ranges up to 16 tons. As their ambitions have reached towards the heavier end of manufacture—to meet changing European transport conditions—so have those with inadequate resources been pushed to the wall, or taken a new line in the developing specialist bodies.

Among all these specialists is an elite group concerned with moving heavy indivisible loads of 300 and 400 tons and more from factories to ports or other destinations. In the main these are huge stators, or generators or massive distillation columns. Motorists who have been trapped behind one of these slow moving juggernauts will have had plenty of time to read names like Wynn and Pickford. It is, indeed, a highly sophisticated business that regularly calls in the aid of another British invention, the hovercraft principle. As the size and weight of heavy electrical equipment increased the design of trailers on which to transport it reached its ultimate limits and a new concept had to be found. Fortunately a solution was at hand with the development of the air cushion concept of spreading the load so that it

could be safely carried over load-restricted bridges to the docks.

A particular problem was the moving of giant electrical generators and stators. The Central Electricity Board, with the collaboration of the British Hovercraft Corporation first successfully used an air cushion in 1967, putting a skirt round the transporter and blowing air from a diesel compressor carried on a separate vehicle to take over from the wheels.

The generator division of GEC Turbine Generators at Stafford first used an air cushion vehicle in September 1968 and for the past five years has been carrying about a dozen loads a year by this means over the 19 restricted-weight bridges that separate the factory from Pomona docks, Manchester, the usual embarkation point. While the cost of air cushion equipment—which descriptively compresses to ACE—is costly to operate, to strengthen the bridges adequately would cost more than £1m, and to treat many other bridges up and down the country that lie between factories like Stafford and U.K. power stations or the docks would be prohibitive.

Moreover, techniques of providing ACE are improving and a second generation vehicle is now among the five operated through the Ministry of Transport, which specifies both the vehicle to be used and the routes it must travel. The new air cushion transporters make use of the superior power/weight ratios of gas turbine powered blower units specially developed by Noel Penny Turbines, of Coventry, for this application. The units are carried on the transporter and thus eliminate the need for a separate vehicle. The NPT powered transporter was used recently by GEC Stafford works to move a 427 ton all up load on a Wynn's 14-axle, 112 wheel trailer to the docks in Manchester for installation at Detroit Edison at Stony Creek on Lake Erie. The heaviest item was the generator stator frame, weighing 310 tons, the heaviest load ever moved over a substantial distance in the U.K. and the next heaviest was the 170 ton rotor.

Peter Cartwright

COMMERCIAL VEHICLES XII

Japan moves into the attack

THE EXTRAORDINARY growth they had risen to 834,000. But of the Japanese car industry sales overseas have risen from over the last decade has tended 517 to 17,000 over the same to deflect attention from the period. Overall, commercial almost equally buoyant growth vehicles accounted for about of its commercial vehicle production. The Japanese motor companies, it is true, have tended to concentrate their exporting effort to the U.S. and Western Europe on cars—partly, presumably, because they are easier to transport. But in the meantime the commercial vehicle sector has been assiduously cultivated, and exports have been rapidly developed in the markets more local to Japan. The signs are that the industry is now turning its attention to Western Europe.

There is little question that the Japanese have the production resources to begin a major attack on new overseas markets. Truck output has gone up from 30,800 in 1951 to 2.3m. last year. Ten years ago, production stood at 1.4m. and five years ago it just topped the 2m. level; at its height, in 1974, output reached 2.6m. units.

Bus production has been expanded almost as successfully. Back in 1951 Japan produced just 4,000 buses. By 1966 this had reached 21,000, by 1971 35,000, and by 1974 it touched 46,000.

The exporting record is just as remarkable as in the car industry. In each of the past 20 years, both the Japanese truck and bus industries have achieved an improvement on the previous year's sales overseas. Twenty years ago truck exports stood at 1,884 vehicles. By ten years ago they had risen to 101,000, within another five years they had leapt to 469,000 and by 1975

1975 TRUCK AND BUS EXPORTS BY REGION

	Trucks	Buses
North America	218,589	6,823
Southeast Asia	180,503	2,016
Mideast	161,948	3,301
Africa	107,347	1,633
Oceania	53,717	85
Europe	45,409	2,121
Central America	35,008	633
South America	28,996	43
Others	1,153	16,654
Totals	633,672	

1975 TRUCK EXPORTS BY COUNTRY

	Trucks
U.S.	208,047
Saudi Arabia	88,451
South Africa	61,902
Thailand	51,942
Indonesia	47,229

Indonesia was followed by Australia, Iran, Taiwan, the Republic of Korea, Greece, Kuwait, Libya, Canada and Venezuela in that order.

tagged on to the end of a car distributor's range since they need little specialist expertise to sell or service. Again, the Japanese pick-up has become an extremely good seller in the Middle East markets. For example, Datsun sold 23,000 this machine. While the pick-ups in Saudi Arabia in 1974, against 53,000 in the U.S. Another vehicle with which the Japanese have scored heavily is the Toyota Land-cruiser, a Land Rover-type vehicle which is now sold in almost as wide a variety of markets as the British Leyland vehicle. Because BL was, until a few months ago, on the Arab boycott list, it has had some

While the volume of Japanese sales overseas has been achieved by lightweight mass-produced vehicles produced to a good standard of reliability—a marketing approach which echoes that of the car industry—it would be wrong to suppose that the Japanese have neglected the heavier end of the industry. During the 1960s a system of road transport was developed in Japan which gave the country a series of so-called "high-speed mass cargo routes." For these kind of roads heavier vehicles with ten ton and over payloads were developed, while towns were seen as the province only for small vehicles of about a four ton payload.

Four major specialist truck manufacturers emerged to serve this expanding market for heavier vehicles, which, as in Europe, was leading towards specialised vehicles of all kinds. These were Isuzu, which produced 174,000 trucks last year, Mitsubishi (226,000), Hino (56,000), and Nissan Diesel (26,000). As production has gone up (Nissan Diesel, for instance, which is an associate of Nissan, the Datsun car company, made only 6,000 vehicles ten years ago), so exports have expanded. In 1974, exports accounted for 15,000 of Nissan's total heavy truck sales.

Overall, according to figures issued by the Japanese Automobile Manufacturers' Association, truck exports in 1974 amounted to 875,000 units. Of these, large trucks of more than three tons gross vehicle weight accounted for the by no means modest share of 152,000 vehicles, the rest being taken up by vans, small trucks and pick-ups. So the Japanese have clearly grafted an increasingly success-

ful heavy vehicle exporting arm on to the lightweight products. In Britain, this challenge in the heavier vehicle sector is currently being developed by Hino, which is in the process of establishing an assembly plant in the Republic of Ireland which will be used as a base within the Common Market from which to tackle the U.K. Hino has tried exporting to Europe before, but those who remember the failure about four years ago also recall the way in which Japanese car exports built up from an equally unpromising start.

The Japanese effort in the U.K., also going on in the lighter weights, has, at least, been enough to set the alarm bells ringing once again. Too many people in the motor industry remember the way in which the first tentative efforts by Japanese car manufacturers were dismissed 10 years ago, only to be followed by the most effective sales drive ever launched by a group of foreign manufacturers in Britain. This time round, a firm watch is bound to be kept on the develop-

ment of the Japanese challenge: the question is, however, whether the British industry has the resources to beat it back.

Certainly at the moment the Japanese seem to be tackling one of the weaker areas of the British industry in the market for lightweight vans and pick-ups. Although sales of Toyota and Mazda have gone down so far this year, this has been more than compensated by the rapid increase in Datsun's pick-up sales—which have reached 2,400 so far this year. And the Commercial Vehicle Show brings more evidence of other new challengers. Honda is launching a new small van, Toyota is to introduce a new Hi-Lux one-ton-plus pick-up, and it is also bringing in a new 9-cwt Corolla van for the first time, at a price of about £2,000. Following the furor about Japanese car imports, these vehicles are clearly a useful way of supplementing sales in a less sensitive sector of the market. What remains to be seen is how the British industry will respond to the challenge they represent.

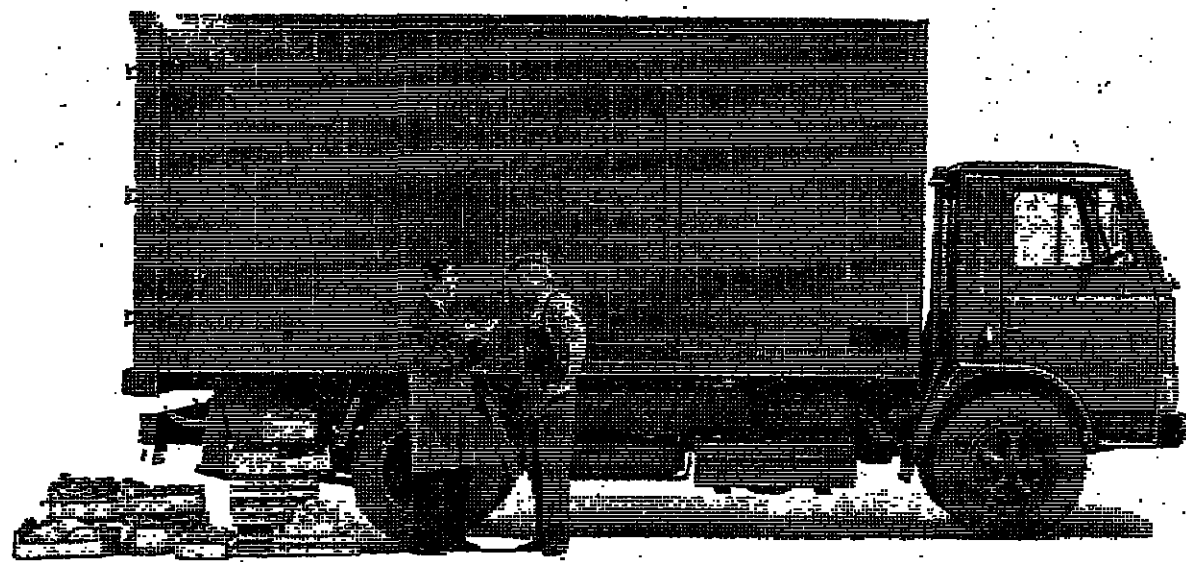
T.D.

JAPANESE TRUCK AND BUS PRODUCTION

	Trucks	Buses
1951	30,817	4,000
1952	29,960	4,100
1953	36,147	4,500
1954	49,852	5,700
1955	43,857	4,200
1956	72,938	6,800
1957	126,620	7,300
1958	130,066	7,500
1959	177,485	8,700
1960	308,020	8,200
1961	553,390	10,200
1962	710,716	11,200
1963	862,781	12,200
1964	1,105,142	13,200
1965	1,160,090	14,200
1966	1,357,358	15,200
1967	1,743,365	17,200
1968	1,991,407	18,200
1969	2,021,591	19,200
1970	2,063,583	20,200
1971	2,059,320	21,200
1972	2,238,240	22,200
1973	2,570,816	23,200
1974	2,574,179	24,200
1975	2,337,682	25,200



Two views of Bedford's new Chevonne designed to beat off the challenge from Japan.



Iveco. Trucks that never keep a grocer waiting.

A grocery store expecting a delivery. A factory waiting for spare parts. A bank clerk who has to get downtown on time. These and a thousand other needs are the world of industrial vehicles today.

It is a world of specialists. Because the most dependable way to do the job is different for every job.

Fiat, OM, Lancia, Unic and Magirus-Deutz have been specialists for generations. Experts in every aspect of road transport technology. In every class of commercial vehicle. In the different problems that must be met in different countries.



18 to 119-passenger buses.

Now each of them has even more to offer. Because now these five spe-

cialists have created Iveco.

Iveco combines the best of all five makes. And gives a new international dimension to their knowledge and their experience.

Iveco is 50,000 people. 1,725,500 square meters of factories. And over 3,000 dealers and service points around the world.

Iveco is big trucks for international haulage and small trucks for in-town deliveries. City buses and travel buses. Trucks that help put out fires and trucks that help build houses. In all, 200 different basic models in over 600 versions.

But we're not out to impress you with numbers. We prefer to impress you with a vehicle that's there when you need it.

Because building dependable transport is what Iveco is really all about.



Specialized vehicles for every use.



Industrial Vehicles Corporation

FIAT, OM, LANCIA, UNIC, MAGIRUS-DEUTZ.
Iveco. Experience takes on a new dimension.

Big plans in Eastern Europe

EASTERN EUROPE is quickly establishing itself in the minds of Western commercial vehicle manufacturers as the big growth market of the next decade. It is not difficult to see why. The region, if Russia is counted as well, is populous. It has an advanced industrial structure, with the technological skills to take advantage of licensing deals and to absorb the servicing requirements of a rapidly expanding vehicle fleet. And within the last few years there has been a determined switch of policy in the Comecon countries towards the development of a better road system and the growth of a domestic vehicle manufacturing industry.

Already massive strides forward towards building up the domestic vehicle fleet have been taken by the Comecon bloc, even though so far none has shown the amazing rapidity which the Japanese displayed 20 years ago in absorbing and then surpassing Western production techniques. Russia for example, is estimated to have produced 775,000 commercial vehicles last year, against 614,000 five years ago, and 415,000 a decade ago.

Several Western plant and component manufacturers have already benefited from these advances. For example, the Kama River project in Russia, although turned down by Daimler-Benz as a general design contract, has brought in Renault to design the engine shop, the German Liebherr Group and Karl Muller to develop the transmission plant, and Pullman of the U.S.A. to set up the foundry. In the back-up plant side, Carrier, the Anglo-French paint specialist, has been deeply involved. Similarly Steyr-Daimler-Puch, the Austrian company, is in-

Nevertheless, while the Soviet car industry has taken a severe blow from the recent revision of its economic development plans, there is no doubt that the intention of maintaining the build-up of commercial vehicles remains. The same goes too for the rest of the Comecon bloc. These objectives have not been spelt out in precise terms. But, broadly speaking, it has been suggested that the aims of the individual East European nations are as follows:

1. The USSR is looking for an expansion of capacity from about 820,000 units a year at present to about 1.3m. in 1980 and 1.6m. in 1985. The Kama river project will bring about 120,000 trucks a year into production, and a deal with International Harvester is being planned to give an additional capacity of 150,000 diesel engines a year for top of the range vehicles.

2. Poland is believed to be planning an increase from about 85,000 units a year at present to 200,000 in 1980 and 250,000 in 1985. The country has a number of projects at the discussion or development stage, including the General Motors/Bedford deal which could provide another 100,000 vans a year. The Steyr-Daimler-Puch plant is designed to produce about 50,000 diesel engines a year.

3. Romania has a rather less ambitious plan, designed to take output from about 40,000 vehicles a year last year to 75,000 in 1980 and 100,000 in 1985. Much of the expansion will probably be in the MAN-based medium-weight truck designs.

4. The Yugoslavian industry is

CONTINUED ON NEXT PAGE

A black and white photograph of a white DeSoto truck parked in front of a brick building. The truck has "DE SOTO" and "DIFREL" on the front grille. Several cars are parked in the background.

The new model from Roman.

CONTINUED FROM PREVIOUS PAGE

Reputation

Required

Perhaps the best indication of the great potential of these markets is British export figures to the area in 1974. The U.K. price vehicle in the area, mainly for

medium-size producer despite its importance within Comecon. So far the country has not been successful in selling really heavy units in East Europe. both the recent Bulgarian deal

What yesterday's Sunday paper didn't tell you

We mean parts not only for cars, but lorries, vans, buses even agricultural equipment.

Our telephone number is Thame (STD 084421) 4511 and our address is Dormer Road, Thame, Oxford OX9 3UB.



SUBTEC
Automotive Components

*Beans Engineering, Butec Electronics, Llanelli Radiators, Rearsby Components, Oxford Exhaust Systems and SU Fuel Systems.

T.D.

COMMERCIAL VEHICLES XIV

Bus making: an industry in flux

SINCE 1968 the stability of the bus making industry has been affected by shortages of vehicles and spare parts. Leyland as the dominant firm, with a virtual monopoly of double-decker production since 1968, has been unable to keep pace with demand. Because of a decline in Leyland's monopoly decline in journeys, in urban and because of demand exceeding supply, bus operators have been encouraged new entrants both by inducing them to enter the industry in the first place, as in the case of Alisa-Volvo, and by being ready to patronise other entrants attracted by the conditions of excess demand, such as Metro-Scania. Although demand for "heavyweight" buses, able to withstand the requirements of intensive urban and inter-urban use, is very strong, an examination of the market facing the bus user appears to suggest that bus makers might face longer-term problems of excess capacity.

Approved

After the post-war boom in bus travel, British bus makers have been supplying a declining total market, the fall in stage carriage operation more than offsetting the growth elsewhere. Bus trips on stage services fell from nearly 11.8bn. in 1964 to 7.7bn. in 1974, with the result that many services became uneconomic. The decline was not arrested by increased central and local government subsidies to bus operators from £85m. in 1973-74 to over £200m. in 1975-76. The general picture is one of a decline in bus and coach travel by an average of some 2 per cent a year in passenger miles, and 4 per cent in the numbers of passengers, between 1965 and 1975, despite a slight growth in usage in 1974.

The prime cause here has been the doubling of car ownership between 1962 and 1972. The Department of the Environment's "low" estimate of a 38 per cent increase in car usage between 1975 and 1985 is not seen as inconsistent with a 20 per cent fall in bus patronage over the same period, although, as the D.O.E.'s "Transport Policy: A Consultative Document" puts it, restrictions on car usage and bus priority schemes "will tend to limit the effects of increasing car ownership in some areas."

As well as the adverse effect of income growth on bus travel, there has also been the influence of increased relative prices: fares have increased by 84 per cent, and the general price index by 81 per cent, between 1970 and 1975.

Nevertheless, the effects on the bus makers have not been proportional to those felt by operators. Stage carriage work may have fallen but growth has occurred in the field of express services, contract and private hire. In addition the volume of bus services provided has not fallen commensurably with the decline in journeys. In urban areas between 1970 and 1974 bus services have been maintained at a consistent level, although in rural areas the National Bus Company's stage services fell by 7 per cent over the same period. So despite the fall in patronage, the maintenance of most services and the growth in some sectors has meant that, discounting the post-war boom in bus travel and the need to catch up on replacement, the annual registration of buses and coaches between 1952 and 1967 increased steadily.

Approved

This steady market was disturbed in 1968 when the Ministry of Transport was empowered to make 25 per cent cash grants to bus operators to wards the cost of buying new buses of approved types. The aim of the scheme was twofold: first, to increase the efficiency and profitability of bus operators by encouraging them to replace fleets with buses more suitable to one man operation; second, to foster the purchase of more standardised buses, thereby allowing manufacturers to tool-up for longer, lower-cost production runs.

As the scheme was to end in 1976 operators started to bunch their orders so that demand increased significantly above trend. Waiting lists appeared for all types of bus but especially modern double-deckers. Only about 7,000 of the 36,000 double-deckers existing in 1968 were suitable for one-man operation, so to allow operators to extend one-man operation to their double-decker fleet by 1976, a productive capacity of some 5,000 vehicles a year would have been needed.

Throughout the post-war period capacity allocated to double-decker production was never much more than 3,000 a year, and throughout the 1960s, with the appearance of high-capacity single-deckers, the demand for double-deckers fell from a domestic peak of 2,700 in 1962 to 1,655 by 1967. As capacity continued to be switched to other uses, and as operators faced long delivery dates, the 1970 output figure

U.K. BUS PRODUCTION

	Double-decker	Single-decker
1960	2,222	7,842
1968	1,264	7,894
1970	1,673	10,584
1974	1,891	13,604

reflected total available capacity. Excess demand led to queues, rationing and price increases. Traditional suppliers unsure of the longevity of the excess demand were loath to instal new capacity. Indeed it was only in 1974, some three years after the Department of the Environment's announcement of the continuation of the grant scheme, now risen to 50 per cent, until at least 1980; that British Leyland found time to turn from its car troubles to proclaim a projected increase in capacity.

Although the extension of the grant scheme reduced the peak in demand, operators were guaranteed long-term help in buying vehicles, and manufacturers could anticipate a decade of strong demand. Another factor clouding the issue between 1968 and 1971 was the need by operators to catch up on replacement postponed because of the uncertainty engendered by the 1968 Transport Act. In essence, the grant scheme was a measure which, although intended well, disturbed market forces to such an extent that both the operator and bus maker were put under great pressure.

By attrition, merger and association the 15 or so companies making heavy duty buses in the early post-war period had by 1968 been reduced to just the British Leyland Motor Corporation. This, together with associate companies, was the only example of a true domestic monopolist in the British motor industry. Although Bristol Commercial Vehicles had been owned by the State since 1948, by 1969 BLMC had increased the 25 per cent stake bought in 1965 to 50 per cent. In July, 1969 another joint venture with the National Bus Company was announced, involving the construction of the Leyland National plant to produce up to 2,000 standardised single-deckers a year. Therefore directly or indirectly, British Leyland dominated heavy duty bus chassis manufacture.

Competition had been lively and beneficial in the bus market, especially that between Leyland and Daimler in the

1960s, and in order to secure alternative supplies operators have always shown themselves willing to purchase from various companies, even at premium prices. The danger of monopoly and the readiness of operators to insure themselves against exploitation, led to several "new" entrants as early as 1968-70. Seddon, Ford and Bedford were for the first time able to make significant inroads into the main markets for stage carriage vehicles, and the Anglo-Swedish Metro-Scania venture produced a brand new entrant.

Initial

The initial boom in demand caused, mainly by the Grant Scheme had only slightly moderated by 1971. Continued excess demand grew to bizarre proportions in 1973-75, after a loss of double-decker chassis production caused by the 1973 Gardner strike and disruption caused by the transfer of Fleetline production from Coventry to Leyland. The continued strong demand, the concern shown by the Passenger Transport Executives, the local authorities, the Scottish Bus Group and independents at the appearance of monopoly meant that during the period 1968-70 the market was ready to support a new source of supply, even at premium prices. However, it is clear that many of the new entrants have been attracted for different reasons.

Existing firms such as Seddon, Ford and Bedford, who traditionally made lighter bus chassis, together with Metro-Scania, were attracted into the market during 1968-70 by the excess demand existing for all types of stage carriages. The Metro-Scania and Dennis double-deckers were mainly a response to the huge shortfall of BL double-decked production in 1973, although Metro's plans had been well advanced. The Scottish Bus Group is on record as saying that it had tried to break the near-monopoly of British Leyland by encouraging other builders, Seddon for single-deckers, and the Alexander-Alisa Volvo for double-deckers. (The latter can be used with other bodywork: the vehicle's design is strongly differentiated from other products by deliberately avoiding a rear engine.)

When it appeared that BL, first with the Leyland National and then with the B15 double-decker, was going to concentrate on integral vehicles, perhaps

leaving no work for independent bodybuilders, the latter took action. Metro-Cammell with the Metro-Scania and Alexander's involvement with Alisa-Volvo, are cases in point; in addition, the initiative for the Foden double-decker chassis came from Northern Counties, the Lancashire-based bodybuilder. Dennis's appears to be the most independent venture; plans indicate an intention to make a premium priced product in small numbers and already a Midland local authority has bought a pre-production batch.

In all instances the new entries are companies with a tradition of operation in the bus or heavy vehicle industry. The Alisa vehicle is 90 per cent British, only the Volvo engine being imported; the Metropolitan double-decker made by Metro-Cammell has a 70 per cent U.K. content; both ventures have relied heavily for their success on the know-how of an established bus body-builder.

Since 1968 when the way was opened to the one-man operation of double-deckers, the manufacturing side has attempted to find ways of forecasting and levelling out the cyclical nature of the revived demand for double-deckers. When BLMC was phasing-out Daimler, AEC and Guy bus production, it hoped to compensate with the Leyland National. However, the market moved against single-deckers and the latter's output has never approached productive capacity. As BL's capacity growth was not directed at meeting the increase in demand for double-deckers, new entrants were attracted by the excess of demand over supply. However, the signs are that BL will soon substantially increase its bus, including double-decker, production.

Capacity

The nationalised firm's current double-decker bus-making capacity of 2,000 a year is likely to increase by over 25 per cent. The new B15, being of integral construction, is as much a body-building job as anything else, therefore its manufacture at two of BL's bodybuilding plants at Leeds and Park Royal would be sensible: especially considering Park Royal's experience in this field. In view of the D.O.E.'s estimate of a fall in bus usage, the limited net expansion appears prudent. BL's Truck and Bus operation forecasts a peak in demand of 3,000 double-

deckers in 1978, falling back to between 2,000 and 2,500 a year over the period 1977-80, but with a severe trough of 2,000 to 1,750 a year between 1981 and 1984.

If BL's capacity is increased to 2,500, although phasing-out some current models and turning the capacity over to truck or single-decker production could reduce this, and with a minimum contribution of 100 vehicles a year from Alisa, 150 from Metro-Scania and additional output from Foden and Dennis, BL is forecasting excess capacity between 1977 and 1987. Indeed by 1983 this could be as high as 1,000 units, although exports could halve it. In the short term BL might be aiming at supplying the trend level of demand, with the new entrants being left to cater for the margins of demand. The main danger of this is that the new entrants could build up considerable customer goodwill, and establish such a foothold that BL is left with less long-term business than anticipated.

The Bus Grant Scheme might be reduced in real terms after 1976-77, which although it might ease the adjustment needed when the scheme is gradually phased out in the 1980s, could place manufac-

turers in an invidious position: either people at the end of the queue will have to pay full prices or a system of rationing can be worked out with the operators. Such a position may induce operators and manufacturers to come closer together to co-ordinate needs and to avoid the troughs in demand, especially that predicted for the early 1980s; indeed, a gradual rather than a sudden phase-out of the bus grant could help here.

Additional potential new entrants exist, including a Bedford double-decker, the PTE's and London Transport; any manufacture by the latter groups is likely to be jointly undertaken with an existing bus maker.

Unlike the mass-producing car and CV industries, entry to the bus-making industry is not prohibitively expensive or difficult. However, new entrants could only become significant if BL lost a sizeable part of its market. This is unlikely in view of the customer loyalty the company enjoys: the large customers have considerable workshops geared to servicing BL products; large fleets of BL products; and a workforce well versed in handling them. To retain this goodwill BL must take account of the customers'

MAJOR EUROPEAN BUS MAKERS (est. capacity)	
Daimler-Benz	10,000
Leyland	6,500
Iveco	5,000
Saviem-Berliet	3,000
Kassbohrer	1,250
Bedford	3,500
MAN	2,000
Ford	2,000
Volvo	2,000
Scania	2,000

needs and resist the temptation to act as a monopolist, by "We know best" or "Take or leave it" policy. To the extent new competitors, to BL competitive, would be a bad thing.

It must be remembered that the choice facing West European bus operators is potentially very wide, with more than 20 separate suppliers. Leyland's traditional strength has been in the bus and truck field which is reflected in its domestic and overseas business; the latter case rugged chassis for the Third World supplyment more sophisticated domestic models. As the car-making activities are not now appropriate at investment funds, BL's strength on the truck and bus side should be reinforced.

D. G. Rhy



This Leyland Atlantean bound for service with Baghdad Passenger Transport.

The arrival of the hydrostatic bus

LONDONERS MAY soon be able to ride on a bus powered by a form of transmission which incorporates motors small enough to be integrated with the existing wheel and brake drum assembly and provides single pedal control for the driver. It is tempting to write "new" form, but hydrostatic transmission had been around for a good many years in a variety of experimental systems, and is being successfully applied to slower moving off-road vehicles like road rollers and dump trucks. It can take 30 years or more before a new power or propulsion system comes to the commercial starting line and hydrostatic drive in road transport is no exception, though it now looks here to stay.

Concept

Fluid power has been used in components and control equipment for the aerospace, machine tool and other industries since shortly after World War II. Their increasing sophistication and use has led the concept into widening fields of application, most of them static or where they are not subjected to continuously changing demands as they are, for instance, in tractors or trucks, particularly in hilly or start-stop situations of heavy traffic or delivery.

Early attempts soon after the war to widen the use of hydrostatic power units and endow them with greater sophistication and, often, the simplicity of much older engineering systems, necessarily made use of components designed for other purposes in industry. Components for hydrostatic units in new developments had first to be properly assessed before specifications could be drawn up, a lengthy process which is now, thankfully, behind the developers. It has not been all that long, for instance, that it has been possible to match hydrostatic drive to a known machine performance.

In the early days, as recalled by Mr. Donald Firth, superintendent of the Special Products

Division of the National Engineering Laboratory in East Kilbride, Glasgow, which is undertaking the bus experiment with the London Transport Executive: "Units were sometimes put together by the crudest labour—it was often confused with plumbing—and one needed a lot of faith to persist." As he adds, did many of the companies concerned with developments.

One of these was the Lucas Group which in the early 60s offered a hydrostatic package that was a straight replacement of gearbox and clutch and drove the wheels through the normal differential. A number of units were supplied to Aveling-Barford road rollers (part of British Motor Corporation, now British Leyland), Bonser fork trucks, Ford and Massey-Ferguson tractors.

While competitively priced to get the project off the ground, the units failed to attract the volume orders necessary to justify the price tag, and when prices had to be pitched realistically, the units priced themselves out of the market and were withdrawn—although, of course, Lucas remains strong in hydrostatic work.

Not unnaturally, too, in the earlier stages of development the hydrostatic units were less reliable than existing power units, so achieving reliability was a vital factor in bringing them to a pitch where they matched older power units. In the intervening years the hydrostatic unit has become more efficient, more reliable and more competitive. Indeed, because the system provides a large torque multiplication by reason of a small pump and big motor, the improvement in power to weight ratios has been outstanding.

As indicated, hydrostatic transmission basically involves a large amount of power going through a small amount of materials that necessarily have to be highly stressed and where lubrication is of critical importance. In the last decade particularly, the U.K. fluid power industry has made a valuable contribution in this direction, and significantly

helped those closely concerned with vehicle developments.

The National Engineering Laboratory pursued a lot of its developments through dump trucks in collaboration with Aveling-Barford, part of Leyland's Special Products Division. Because the hydrostatic drives are located in the wheel hubs and are quite logical, for—hub motors—they at once set the designer free to construct an entirely new body of larger carrying capacity. The NEL will survive that much more easily in less testing conditions.

The project with London Transport Executive is designed to reduce both fuel and maintenance costs. Maintenance costs are a significant proportion of total running costs, and this is especially so in hilly terrain because of the increased loadings on mechanical transmission and brakes. Before the year it is planned like the ability to freewheel, to incorporate regenerative torque and power requirements recover the substantial amount from a small number of standard components, and to match the transmission to its work. It is hoped to recover a large part of the cost of this energy, with resulting

NEL two or three years ago to report that a direct drive, slow-speed hydraulic motor of the multi-lobe ball piston type could have advantages in size, simplicity and cost.

The choice of a bus in which the hydrostatic drive is bold, challenging and quite logical, for it succeeds in a hostile environment where extreme demands are commonplace, it carrying capacity. The NEL will survive that much more easily in less testing conditions.

The project with London Transport Executive is designed to reduce both fuel and maintenance costs. Maintenance costs are a significant proportion of total running costs, and this is especially so in hilly terrain because of the increased loadings on mechanical transmission and brakes. Before the year it is planned like the ability to freewheel, to incorporate regenerative torque and power requirements recover the substantial amount from a small number of standard components, and to match the transmission to its work. It is hoped to recover a large part of the cost of this energy, with resulting

CONTINUED ON NEXT PAGE

A matter of course.

Ticket issuing machines, by Almex, of course. And their followers, passenger self-service systems, by Almex, of course. And their followers, for the refinement of public transport. Fleet operation systems, for optimum fleet usage, by Almex, of course. Ticket issuing, vending and cancelling. Passenger counting. Vehicle monitoring. In public transport they are a matter of course.

By Almex, of course.

Tick your interest below, and send ad for further details to Almex, Station Road, Edenbridge, Kent TN8 6ED

☐ Ticket issuing ☐ Passenger self-service ☐ Vehicle Fleet Operation Systems

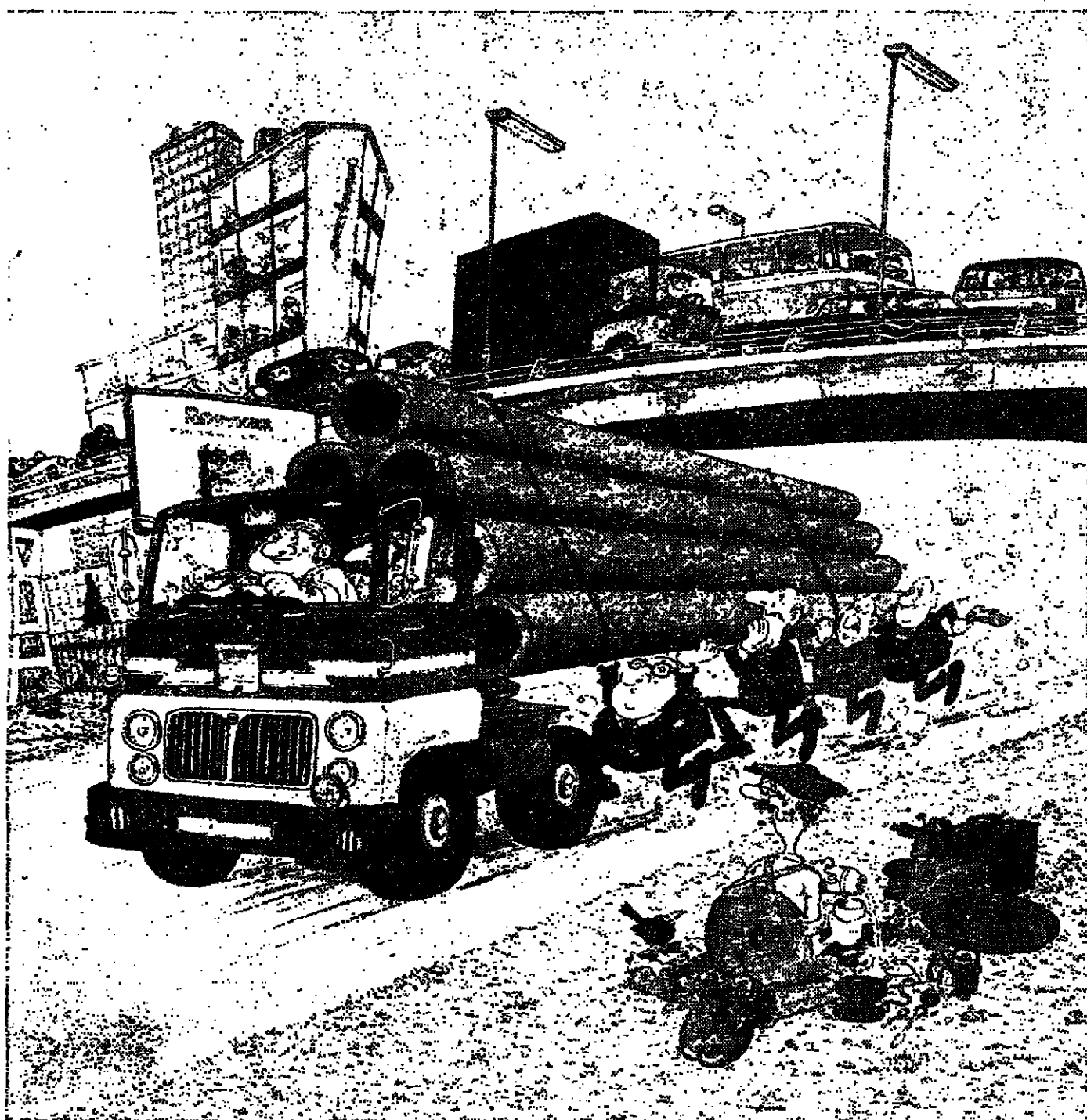
Name

Company

Address

Visit us at West Centre Hotel, Tower and Westminster Suite, Little Road opp. Earls Court, Sept 27-Oct 2

ALMEX



Do your trailers add to your profits. Or to your overheads?

Renting trailers from TIP offers you all the benefits of ownership. Without the burdens of it. And tax advantages.

So look out of your window. If you can see tractors and trailers gathering dust instead of making clouds of it, you could be losing money.

The fact is, if you own your own fleet, it's only earning its keep when it's operational.

It's a dead loss to you every hour it's idle. TIP offer you an intelligent alternative. The trailers you need, for as long as you need them. And no longer.

And as your business grows, you can gear up accordingly. With expert advice from us to help you cope with the plateaus, and the peaks.

It's all part of the TIP service. We run our business

efficiently to help you run your business more efficiently.

In 1976, no one can afford to have trailers. But you will pay for using them.

Phone Watford 48311 today for details of the kind of deals that only TIP can offer you.



TIP can offer you. Transport International Pool, Star House, 69/71 Clarendon Road, Watford, Herts WD1 1DQ. Tel: Watford 48311 Telex: 897 326

مركز الأمل

COMMERCIAL VEHICLES XV

U.K. trailers now a major force

U.K. trailer industry has development work to bear on the truck tractive units, tend to be made for a different life expectancy and replacement cycle. Because of these divergencies of approach the two industries have grown up at arms length from each other.

Simplicity

Nevertheless, despite the relative simplicity of trailer manufacturing, technical sophistication has undoubtedly been a plus point for the British producers in several overseas markets. For example, a large proportion of exports to the Middle East and Nigeria are sold for use in the oil industry, demanding specialist heavy-duty trailers to carry oil rig equipment, and low loaders to transport construction equipment between building sites. Eastern Europe also tends to concentrate its buying on more technically advanced products, sometimes made on a one-off basis, for transporting heavy plant to its developing regions.

Another, more bizarre example, is Crane Fruehauf's contract with Hungarian State trucking concern, for refrigerated vehicles to transport meat products down to the Middle East. To hang onto these markets it will be necessary to maintain technical excellence. The main efforts towards achieving this today are going in the dual directions of weight reduction and better fuel economy—lighter construction because it allows heavier loads within the legal maximum, and fuel saving because operators are increasingly seeing this as a major factor in their buying policies.

Substantial

Weight saving has led to the decline of steel trailer bodies and much wider use of aluminium and glass-reinforced plastics on plywood for trailer construction. In the box van type of construction—the enclosed four-sided trailer which has become increasingly popular—aluminium's lightness has become particularly important. It can be riveted together from

large sheets, is a more rigid and lighter material than steel, and is ideal for the "monocoque" construction method which does not utilise a chassis.

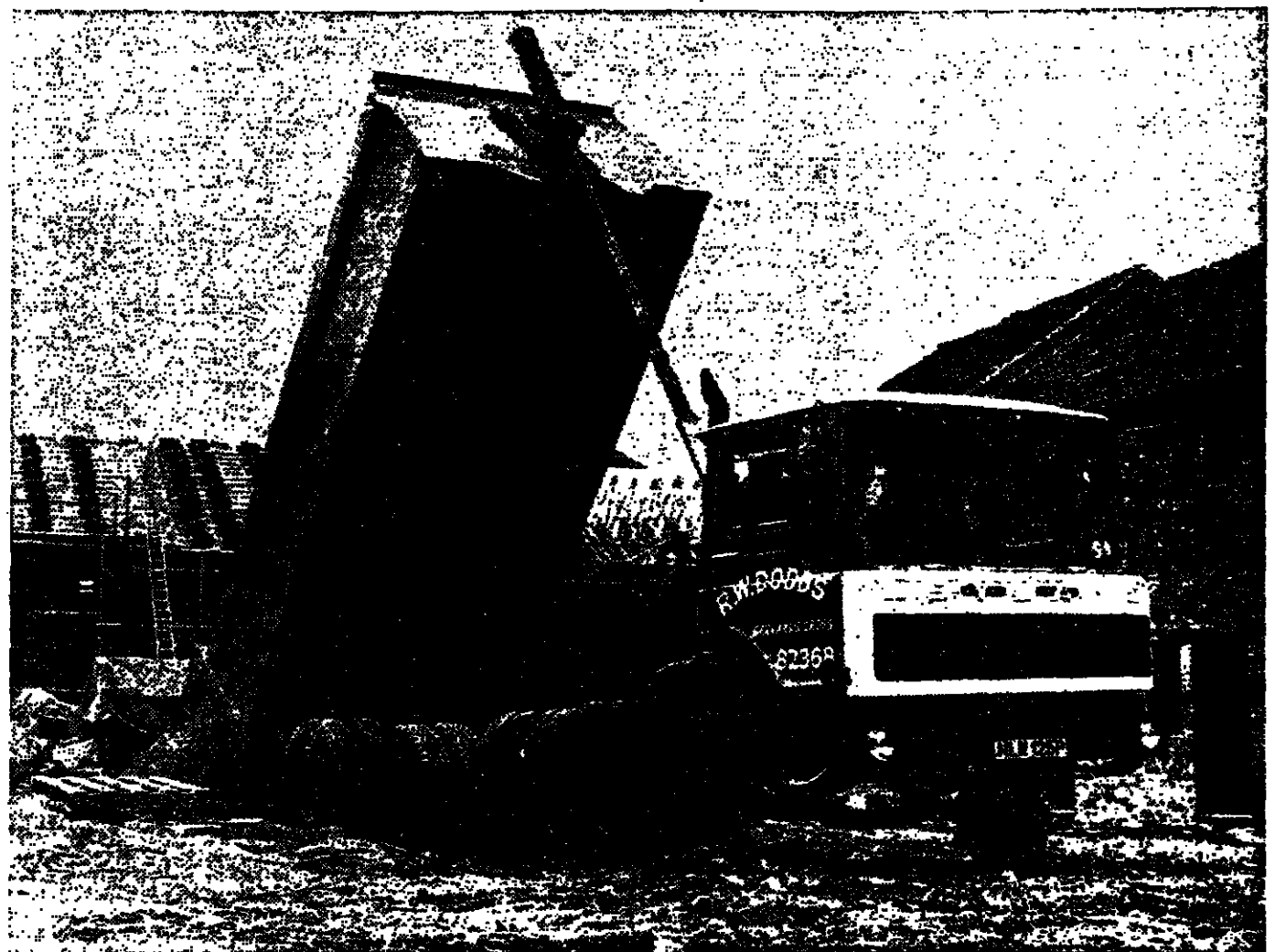
Weight reductions are, of course, a useful element in the struggle to achieve greater fuel economy—there is an almost direct correlation between weight and miles per gallon. But several new ideas are now being introduced to heavy trucks in an attempt to cut down both road and wind resistance.

Road drag, for example, is being tackled by York Trailers with a device called a Hobo, a system which hoists up one of the rear trailer axles in certain conditions so that its wheels do not touch the ground. The notion behind the Hobo is that most trucks run only part-loaded much of the time, and entirely unloaded some of the time. According to York's research, heavy trucks are fully loaded only 55 per cent of the time, and on many trips they are light enough not to need the two rear axles.

York has also introduced an aerofoil system which fits to the front end of the large box trailers and rounds off the corners. Coachwork Conversions has developed a similar system of curved extrusions which fit around the sharp right angles of a laminate box van to give it a more aerodynamic profile.

These are only examples of the profusion of ideas now being worked on to develop lighter trailers without sacrificing strength. Bodies are getting thinner, chassis are being phased out, and aluminium and glass-reinforced plastic are establishing themselves as the firm favourites of bodybuilders. At the same time there is continuous development aimed at making trailers easier to load and unload. Although the product may look simple in itself, a great deal of ingenuity is being employed to make it better and more reliable on the road.

T.D.



A tipper version of the Leyland Bison.

Hydrostatic bus

CONTINUED FROM PREVIOUS PAGE

economies in fuel consumption, brake maintenance and a reduction in pollution.

A regenerative braking system is particularly attractive for

vehicles frequently starting and stopping, like milk floats, delivery vans, taxis and fork lift trucks. A typical driving cycle for a city bus shows that around 20 per cent of the time is spent in braking, which invariably occurs without coinciding through the gears, and occasional braking peaks of up to 0.25g can be expected. NEL estimates it ought to be possible to make available recovery about 60 per cent of the energy from the engine, with a reduction of around 40 per cent in fuel consumption and an improvement in brake assembly that includes the originally life of up to sixfold. An added hydraulic piping. This makes it

benefit is that the starter motor can be eliminated and the vehicle taken out of the garage with engine at rest to reduce pollution and noise.

The bus, a Daimler Fleetline, has already been fitted with a hydrostatic transmission powered by a conventional 180 hp diesel engine incorporating a unique NEL design of hydrostatic motor small enough to be integrated with the existing wheel and brake drum assembly. While these motors are particularly suitable for vehicles with independent suspension, in the present exercise conventional leaf spring suspension has been retained. The NEL design has been built into a hydrostatic axle assembly that includes the originally which was taken over some two

250 lb lighter than the rear axle, a sizeable saving that, for example, in a goods vehicle could be used to increase the carrying capacity.

Central

An automatic electro-hydraulic control system is used which maintains a constant load torque on the engine and coinciding with the optimum fuel consumption characteristics of the engine. As a result the driver has only a throttle control to operate. All the components used in the hydrostatic transmission will be marketed in the near future by the NEL licensee, Carron Hydraulics, a Scottish company associated with developments

years ago by Rexroth, of Germany, one of the biggest hydraulic manufacturers in Europe. Field trials to date with the hydrostatic bus indicate that acceleration and top speed are comparable with the mechanical transmission, and while no quantitative measurements have yet been taken of general noise levels, they appear perfectly acceptable.

These trials will be followed by a similar project for the Scottish bus group. Among other transport executives that have shown a lively interest in developments are the West Midlands and Yorkshire. Indeed, potential users have shown in general more interest than have bus and truck makers.

P.C.

Ride the Rockwell line.

Rockwell axles and brakes are the best for trucks and buses.

They are all manufactured in Europe and specified by major European manufacturers. Rockwell axles and brakes and other drive train components are also used in off-road construction, mining, material handling, forest and farm operations. Rockwell products have been adapted to land and air cases—especially designed for European applications where legislation, axle loads, and export requirements are different from those in the United States.

You will be in good company with Rockwell components.

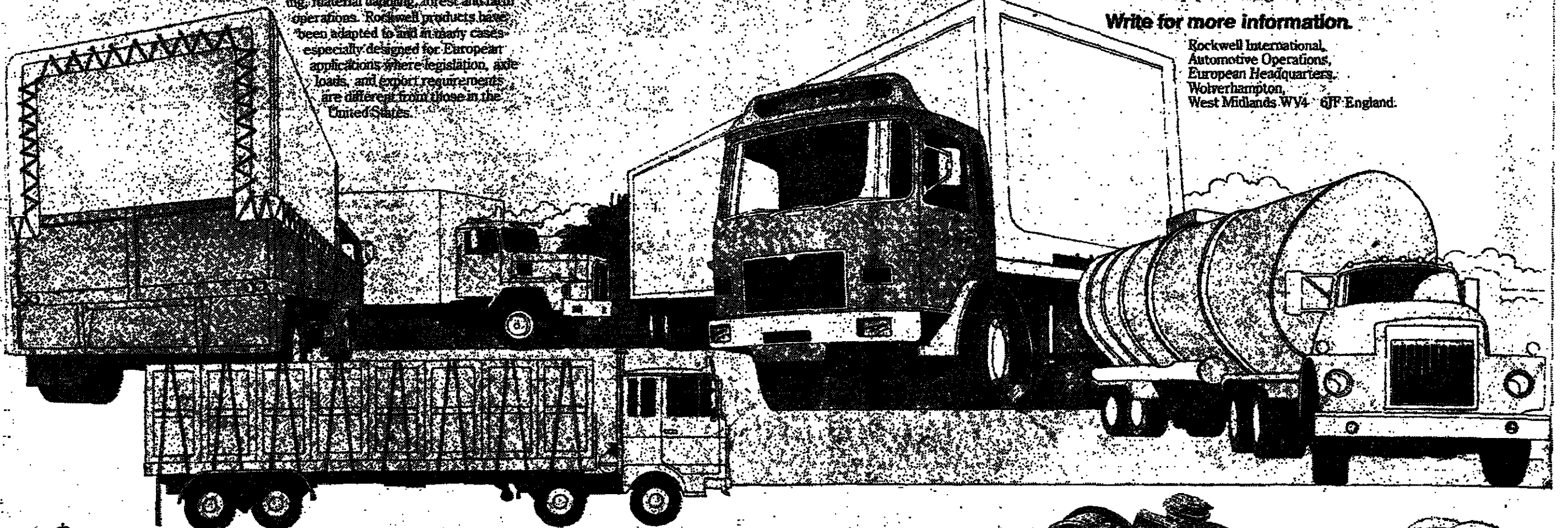
Half of all American heavy-duty trucks and tractors are equipped with Rockwell axles, and seven out of ten American heavy-duty highway units are equipped with our brakes. In fact, we're the largest supplier of axles and chassis components for heavy-duty trucks.

Lower operating costs and higher profits.

We design and build our components to work together as a system, of by themselves, to provide maximum performance. The result is a line of quality-engineered, precision-manufactured drive train components. They have fewer parts for more reliable service, longer operating life and simpler, low-cost maintenance. Their low weight means more payload and higher profits for fleet owners.

Write for more information.

Rockwell International,
Automotive Operations,
European Headquarters,
Wolverhampton,
West Midlands WY4 6JF England.



Front axles

Rockwell front axles are built strong with sealed knuckle pins and permanently lubricated tie rod ends that give long life and greatly reduced maintenance. Rockwell brakes and aluminium hubs save weight and increase operator payloads.

Single drive axles

Rockwell single reduction design offers fleet owners simplified, easier to service, lighter weight, high payload axles with rugged hot forged rectangular housing. A wide choice of hypoid gear ratios is available for every operating condition. Now also available in 6800-kg (15,000-lb.) and 8380-kg (18,500-lb.) two-speed designs.

Tandem drive axles

Our tandem drive axles give the same Rockwell advantages as our single drive axles, plus higher load capacities. Our new SQBP is the first tandem designed for up to 800,000 kilometers without major service.

Universal joints

The new 17N X-Tra Life joints extend lubrication intervals to 80,000 kilometers in average highway service. We can offer a full line of joints and slip assemblies, conventional and wing bushing types.

Brakes

Our lightweight Stopmaster® II twin wedge brake has automatic adjustment and our Cam-Master® unit-mounted brake is available with our new automatic slack adjuster. Both of these brakes are available in sizes to meet all operating conditions and new European legislation.

European manufacturing plants

We have manufacturing plants in England, France, Germany and Italy where we also make side members and frame assemblies, black and fully machined axle housings, transfer cases, front drive steer axles and window regulators.

Visit our stand No. 230 (Gallery) at London Commercial Show



Rockwell International

...where science gets down to business

ADVERTISEMENT

DAF TRUCKS LOOKING TO THE FUTURE

Transport is indispensable in our modern society, that's a fact.

To cater for the demands of hauliers throughout Britain, there are almost 20 truck manufacturers. Most of the manufacturers are in a position to supply good vehicles. Additionally, most can provide the operator with some form of back-up service once the truck is in operation. The amount and quality of this service however does vary from manufacturer to manufacturer.

It is therefore apparent that operators must take a good long look at all the available options before committing a large capital investment with any one of the available manufacturers.

Increased funding is allocated every day of the year to further the transportation of our goods. Unless the operator can be guaranteed a complete after sales back-up service, and the highest specification truck, his fleet can become a huge liability.

One manufacturer taking a leading role in this respect is DAF Trucks. A household name in their home market, Holland, where they have over 45% of the available market, DAF Trucks (G.B.) Ltd. have now been in the U.K. for almost four years.

In this short space of time, the Company have put over 2,500 trucks into operation and established themselves as the number two Importer. No mean feat by anybody's standards.

The DAF Trucks philosophy is simple, yet effective. They consider themselves small enough to be completely flexible while maintaining their individuality and their product quality. On the other hand they are large enough to design, develop and manufacture their own components such as engines, axles, cabs, etc. As David Mansell, Managing Director of DAF Trucks (G.B.) Ltd., says:



D. W. Mansell - MD, DAF Trucks (G.B.) Ltd. "Looking to the future".

"We have to be good to survive, we don't have anything else to fall back on."

Developments within the transportation industry indicate that more and more importance is being placed on the "heavy" end of the tractor market. It is predicted that by 1980, tractors in the 16 tonnes or more category will account for 55% on total.

Realising this trend, DAF Trucks have already taken steps to ensure that their range remains the most comprehensive available. A new tractor unit, the FT 2300 DHU has been developed and makes its international debut at the Earls Court Commercial Vehicle Show, 24th September - 2nd October. Available as a full production model in the U.K. early in 1977, the new DAF Trucks "2300" is the result of extensive research and analysis of the total E.E.C. truck market. Designed to anticipate future European-wide legislation, it embodies all the features of quality, reliability, and design foresight expected with vehicles from one of Europe's leading manufacturers.

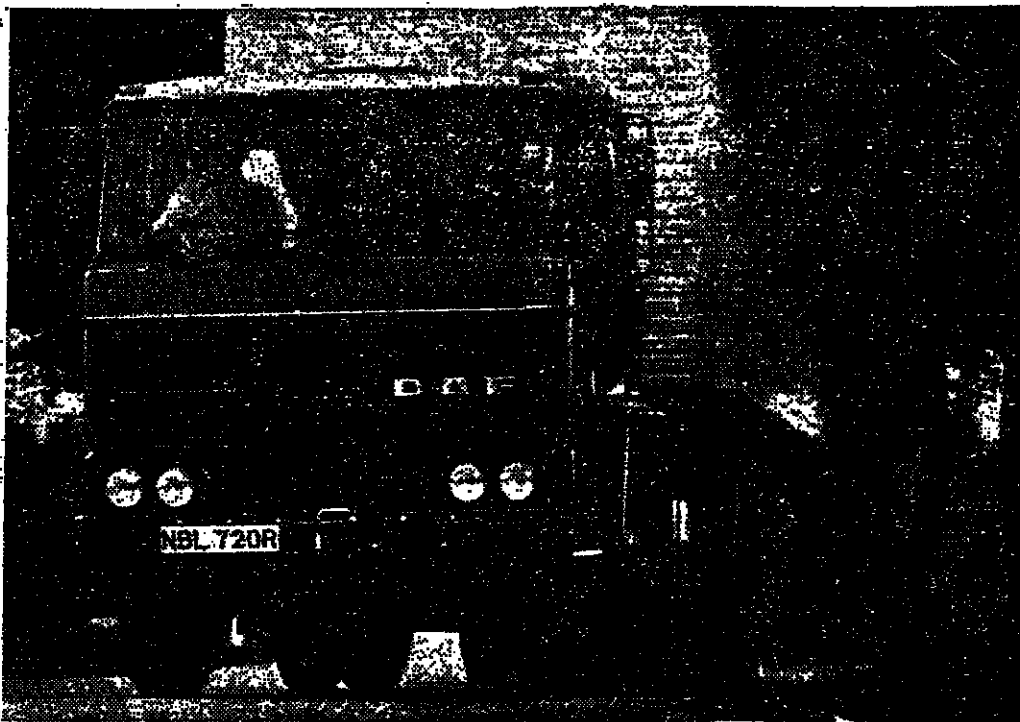
It is no accident that DAF Trucks are launching their new tractor unit at this point in time. In-depth studies have revealed the increasingly important part which is to be played by the road transport industry in the total European transport market.

Manufacturers cannot afford to rest on their laurels. On the contrary, if the best possible performance is to be obtained from the European Commercial vehicle fleets, vehicle ranges will have to be adapted continually to meet new developments.

There can be no doubt that DAF Trucks have done their homework to perfection. They have defined the market and its problems. They have analysed and defined the answer to these problems, and finally, they have produced a high specification truck which ideally complements the existing comprehensive range of vehicles.

Now, at last, own account operators and professional hauliers everywhere can confidently rationalise their fleet requirements based on DAF Trucks philosophy of matching supply to meet demand.

The DAF Trucks range of vehicles for the U.K. market has been carefully selected, providing the comprehensive network of dealers with a range of models from a 14.5 ton four wheeler up to a 56 ton tractor unit.



The new FT 2300 DHU from DAF Trucks.

Top Trucks deserve top back-up facilities.

The best possible truck cannot be a profitable tool unless the number of days of downtime for repairs and maintenance are kept to an absolute minimum.

For a number of years, DAF Trucks have analysed the life of numerous trucks, resulting in a maintenance and repair system tailor-made to meet specific transport problems. The benefits to the operator are obvious - annual maintenance and repair costs can now be budgeted far more accurately. Additionally, DAF Trucks have initiated a maintenance and repair contract, whereby they assume responsibility for maintaining the operator's truck at fixed intervals over a period of up to four years.

Repairs are then carried out as required, although these are kept to an absolute minimum, thanks to the regular maintenance of the trucks.

What happens though when a truck breaks down in the early hours of the morning, or in some far flung corner of the country miles from anywhere. Well DAF Trucks have taken care of this too.

Throughout the U.K., DAF Trucks provide a 24 hour emergency breakdown service - DAFaid. All the driver has to do in the event of a breakdown or accident is phone one central number and report his situation. DAFaid then takes over. Arrangements are made immediately to have the truck either fixed at the roadside, or towed to the nearest workshop if major repairs are necessary. Either way, the driver

can be confident that his truck will be back on the road in the shortest possible time. On a similar basis, an emergency breakdown service is provided throughout Europe and the Middle East is provided. Manned night and day, the "International Truck Service" as it is termed, or I.T.S. for short, is every operator's assurance that his truck will be kept on the move through some of the toughest routes in the world.

Parts not in stock are ordered direct from the Eindhoven Head-

quarters and if necessary, an item will be taken out of the production line in order to keep a truck on the move.

It is DAF Trucks intention to provide the very best in service back-up. Everyone in the organisation is in tune with the idea that

"The quality of a truck is also determined by the quality of the organisation behind it."

DAF Trucks are certainly putting this into practice.



P.J.E. are using DAF "Supercontinentals" on long haul trucking between the U.K./Middle East. The DAF Trucks back-up service en-route to the Middle East was one of the key factors in the buying decision.

COST OF OPERATION - it's influence on the industry.

A truck manufacturer's responsibilities extend much further than just providing operators with high performance trucks. Some effort must be made to identify, and then reduce the overall "cost of operation".

This "cost of operation" is something which affects not only the haulier, but every man, woman and child in the country.

In recent years, a staggeringly high figure of 85% of our total goods has been transported by road. This underlines the importance of the role being played by the road transport industry. It also shows quite clearly that unless costs are controlled, and indeed, kept down to the operating minimum, we will all be affected. Inflation is already at an unacceptable level, if transportation costs are not controlled, the price of our food, clothing and other items which we tend to take for granted, will undoubtedly continue to rise.

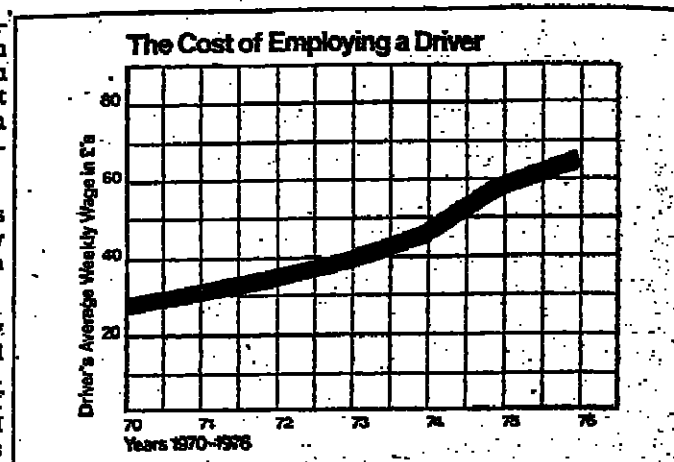
Fortunately, DAF Trucks have taken positive steps, not just to maintain existing operating costs, but in the majority of cases, to actually cut costs.

Over a period of some ten years, the Company have carried out a very detailed analysis of truck operating costs. These costs have been broken down into specific areas and identified as either "fixed" or "variable". It is a fact that there is no escape from these operating costs. However, DAF Trucks have proved that whilst you can't remove the costs entirely, they can be controlled and minimised.

The analysis of operational costs is all-embracing and covers interest and depreciation, tax and insurance, driver costs, fuel costs, tyres, repairs and maintenance and, of course, overheads.

In each area of concern, DAF Trucks have rationalised the problem to the point where, irrespective of the type of operation being carried out, a solution can be supplied that is right.

As an example of just one of these areas of concern, we can look at one of the "variables", the cost of fuel. It's always difficult to look into the future. One thing we can be sure of, however, is that fuel prices will continue to rise. DAF Trucks, have, therefore, designed and manufactured a range of turbo-charged engines which really do have a small "thirst". Independently conducted

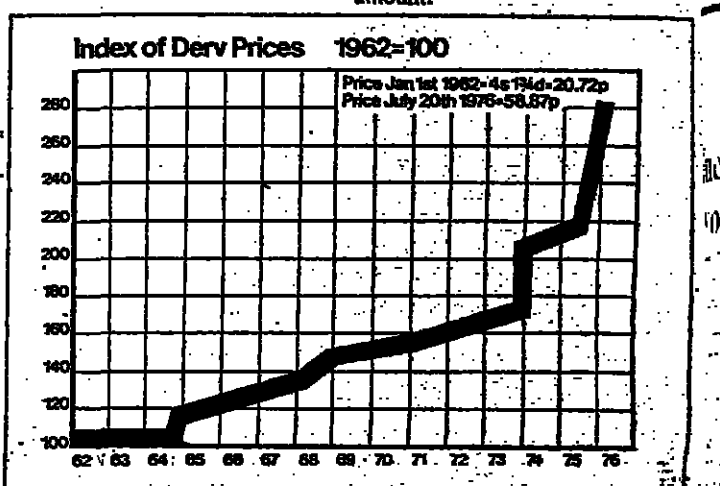


road tests have proved that DAF miles. If that figure is then multiplied by the number of vehicles in the fleet, the overall saving becomes very apparent!

Indeed, one independently run road test involving eleven top European trucks, proved that the DAF Trucks engine gave a 16% better fuel economy than others in the same test.

"The purchase price of a vehicle is no longer the sole or decisive consideration for an operator."

Converting that into hard cash terms, it represents a saving of £900 per annum for a 32 ton articulated operation at an average 75,000 reduced to the least imaginable amount.



DAF Trucks

Proven economy for today's world
DAF Trucks

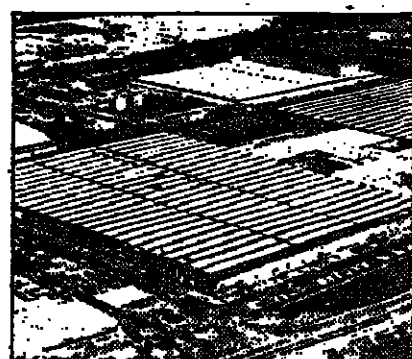
The driving power in reducing the world's transportation costs!

Economic prosperity depends increasingly on moving goods over long distances. DAF Trucks recognise this fact and have taken steps to ensure a transport policy, based on the 'cost of operation', which provides an efficient system, in terms of operational cost control. Of the total goods moved in recent years, approximately 85% went by road. That's how important it is that somebody makes a positive step to reduce costs. Costs which ultimately affect us all.

DAF Trucks have taken such a step which many International Companies are already using to their benefit.

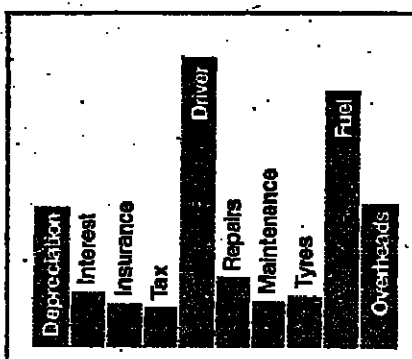
The DAF Trucks Organisation

The DAF Trucks manufacturing plant based in Holland is geared to produce trucks - nothing else. The factory is probably the finest in Europe with an output of 12,000 trucks per year. Every part of a DAF truck is manufactured and assembled at the factory (excluding the gearbox) by skilled craftsmen who are dedicated to producing the best truck money can buy. Because only trucks are manufactured there is nothing else to fall back on, and that's the operators guarantee... quality and reliability.



The Cost of Operation

A well planned purchasing policy could have a considerable effect on your profits for the year. DAF Trucks have analysed the total 'cost of operation' and can positively influence both fixed and variable costs - no matter what the size of company or its operational requirements. Now you can be sure that the right specification truck is chosen every time. Fuel, depreciation, maintenance, tyres, driver costs etc. have been considered. A tailor-made solution to specific transport problems is available... take advantage.



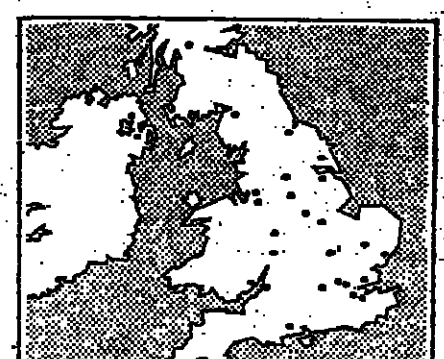
The International Truck Service

A product's quality can be measured by the quality of the organisation behind it. DAF Trucks believe that a truck cannot be profitable unless downtime is kept to the absolute minimum. A sophisticated analysis of 'truck life' has resulted in maintenance and repair schedules to suit every type of operation. But even this is not enough - a network of service centres throughout the U.K., Europe and the Middle East, provides the ultimate in international service organisations keeping DAF Trucks on the move... always.



The Range

To ensure that every operator has the opportunity to maximise his or her fleet potential and thereby reduce overall transportation costs, DAF Trucks manufacture the most comprehensive range of trucks available, tractors, tipper and mixers, all engineered to the highest specification, providing the best economy and reliability of operation. There are almost twenty truck manufacturers selling trucks in the U.K. Only DAF Trucks offer the finest range of trucks, backed by the finest all-round organisation.



U.K. Dealer Network

DAF Trucks

DAF Trucks (GB) Limited, Marlow, Buckinghamshire
Telephone: Marlow (062 84) 71011. Telex: 848489.



The truck you buy today that keeps its promise for tomorrow!

مكتبة التحصيل

Neepsend waiting for second-half upturn

Term (years)	3	4	5	6	7	8	9	10
Interest %	12½	12½	13	13½	13½	13½	14	14½

Rates for larger amounts on request. Deposits to and further information from, The Chief Cashier, Finance, for Industry Limited, 91 Waterloo Road, London SE1 8NP. (01-925 7822 Ext. 244). Cheques payable to "Bank of England, a/c FFI". FFI is the holding company for ICGF and FCI.

INTERNATIONAL COMPANY NEWS

DUTCH BUILDING COMPANIES

Boost from overseas business

BY MICHAEL VAN OS
FOLLOWING Bos Kallis West-minister, three more major Dutch building companies—Stevin, Ballast-Nedam and NBM—have reported improved business so far this year while there are good hopes of a profit increase for the full year. All have been greatly aided by increasing volumes of work obtained outside Holland, particularly in the Middle East.

Stevin expects this year's net profits to be up about 10 per cent. on those achieved in 1975, which were unchanged at Fls.17.5m. Also in line with earlier forecasts, the turnover should reach about Fls.1.6bn, which is about Fls.600m. more than the year before.

The company, which is based in Utrecht, said in its interim statement that turnover has amounted to Fls.650m. in the first half of this year.

In common with the other large Dutch building companies, activities outside Holland are continuing to play an increasingly important role. Stevin, which last year generated 44 per cent. of its turnover abroad and in 1974 merely one-third, expects to push up the foreign share of total business to about 57 per cent. this year. Of its current order book value of Fls.1.5bn, compared with Fls.1.6bn at the end of 1975, 64 per cent. related to work abroad, much of it in the Middle East.

Stevin, whose 1975 dividend declaration was Fls.5 cash per share of Fls.20, or alternatively Fls.2 cash plus 4 per cent. in shares, said it had a reserve, earlier this year floated at Fls.50m, 8.75 per cent. convertible bonds.

Ballast-Nedam, based in Amsterdam, said before the week-end in an interim statement that, barring unforeseen circumstances, this year's net profits were expected to rise to Fls.11m. from Fls.7.3m. in 1975. It added that this year's turnover was expected to rise to about Fls.1.2bn, compared with Fls.917m. last year.

The company said that business this year had developed in line with expectations and that, in view of the size of the order portfolio (currently at Fls.1.4bn), a "good" capacity-utilisation was assured for 1977. As for 1987, prospects were described as "reasonable" bearing in mind that Ballast-Nedam expects to obtain several major contracts shortly. The foreign share of its orders was of significant importance.

In 1975, the company proposed a dividend of Fls.3.20 per share of Fls.20. The company had still suffered an after-tax loss of Fls.0.5m. in 1974.

In Rijswijk, the building company NBM, which suffered heavy losses in 1975, stated that it had been operating profitably in the first half of this year. But since it was faced with high costs in the rest of the year, following the abrupt rise in interest rates, its board was not in a position to make a pronouncement about its results (loss in 1975: Fls.13.9m.).

The company said first half turnover amounted to Fls.339m., compared with Fls.405m. last year, and the full year's turnover was expected to reach about Fls.700m. (Fls.728m. last year). NBM pointed out that pre-tax

MINING NOTEBOOK

A little leg-pulling among brokers

BY LODESTAR
MY SHYLY anonymous broker has been so successful recently in his predictions—Randfontein versus Pancontinental and a timely recommendation of RTZ—that readers are naturally curious to know whether he can be third time lucky. So I asked him.

All I could get out of him at first was that anyone who wanted further advice about RTZ should consult broker James Capel who in one part of their latest weekly circular reaffirm a previous recommendation to buy the shares on any short-term setback and in another advise a sale at over 180p. Friday's price was 184p.

So what, I said. Well, he replied, if I were looking for sound advice in your column I should go along with what the right hand of Capel says, namely that RTZ is the premier U.K. mining house is "not only a classic hedge against further falls in the sterling but is now beginning to reap the benefit of the upturn in world economies." And, he added, one of the oil giants may promise in Parliament that it would "locally" move over to a new area.

This piece of inter-broker leg-pulling, always enjoyable, nearly made me forget my original query. My informant was not to be drawn. You can't hit them every week, but if you will simply have to tell your readers to watch this column. In answer to both these sentiments I could do no more than my head to become too swollen-headed if I showed him the other broker's circular on my desk expounding such sentiments as "we continue to regard RTZ as the prime buy in the mining finance sector."

This brings me round to another reader's favourite, my friend who has made more money out of the mining markets than anyone I know. What is he doing about his so far unsuccessful purchase of Gold Mines of Kalgoedie? He says that under the circumstances he had to put in a long distance call to ask him because he is in Perth, the Western Australian variety.

He was crestfallen but only slightly. He said that Mr. Charlotte may be closing down but Blue Spec is opening up and, as predicted, Mr. Harry Oppenheimer was in the "minable" ceremony.

Mr. Oppenheimer said he was optimistic about the future of Gold. "I have to be. We are proving our faith by spending money on this project," he said. "I am also optimistic and I certainly have to be so far as GMR is concerned."

New French steel group to be formed

PARIS, Sept. 26
A NEW French steel group will be the third-largest in France is scheduled to be set up early next year by the merger of three major companies—Hauts Fourneux de la Chiers, Châtillon-Commentry-Bleche and Aciéries de Tréfileries Neuves-Maisons.

The group will have a combined annual turnover of some Frs.4bn, and its 16,000 employees will produce around 2m. tons of steel annually.

France's other steel giants are Usinor and Sacilor.

The operation will take place in two stages. Chiers and Châtillon-Commentry-Bleche will merge by the end of October. Neuves-Maisons-Châtillon will join the group at the beginning of 1977.

Châtillon-Commentry-Bleche will take over the Frs.672m. of Neuves-Maisons, raising its capital by Frs.216m. and creating 2.9m. new shares.

AP-D

Money and Exchanges

Bank of England Minimum Lending Rate 13 per cent. (since September 10, 1976)

Activity in the London money market was strongly influenced by the over the counter market. Government's new \$500m. Treasury 141 per cent. 1994 tax stock last week. At the weekly bill tender the \$500m. bills on offer attracted bids of \$1.398m. The whole allocated amount, at the average rate of discount fell by 0.034 per cent. to 12.9454 per cent. This week \$500m. will be on offer, replacing maturities of \$500m.

Day-to-day credit was in short supply all week and the shortage became more acute on Wednesday. Having given an exceptional amount of assistance on Wednesday and Thursday by buying Treasury bills and local authority bills, the authorities were obliged to take the unusual step on Friday of repeating their actions and Thursday in addition to lending an exceptional amount to ten or 11 discount houses at a rate below MLR for repayment to-day.

It was pointed out by the Bank of England that this was necessary because of the week's extreme shortage of funds brought about by the tap stock over subscription, and was not intended to penalise the houses in any way.

Local authority loan rates ended the week firmer while the mortgage sector rates tended to be easier. One year local authority bonds were placed during the week at par with a discount coupon of 12 1/2 per cent. Attention in the foreign exchange market seemed to be

SAVING SAVING

Saving SAVING

When Ayes Hitam were one of the tin shavers recommended here in March, they were 200p. Tin was \$1,070 a picul in Penang. Ayes Hitam were now 200p. Tin was \$1,180. Despite the substantial advance in price, brokers Laurence Prust are still keen on the shares. They strongly recommend U.K. investors to buy now although overseas investors, particularly those in Malaysia and Singapore, should wait until after the domestic change in Ayes Hitam. A few more U.K. dividend restraints it is expected that 1976-77 payments will be advanced sharply.

Saving SAVING

When Ayes Hitam were one of the tin shavers recommended here in March, they were 200p. Tin was \$1,070 a picul in Penang. Ayes Hitam were now 200p. Tin was \$1,180. Despite the substantial advance in price, brokers Laurence Prust are still keen on the shares. They strongly recommend U.K. investors to buy now although overseas investors, particularly those in Malaysia and Singapore, should wait until after the domestic change in Ayes Hitam. A few more U.K. dividend restraints it is expected that 1976-77 payments will be advanced sharply.

SAVING SAVING

When Ayes Hitam were one of the tin shavers recommended here in March, they were 200p. Tin was \$1,070 a picul in Penang. Ayes Hitam were now 200p. Tin was \$1,180. Despite the substantial advance in price, brokers Laurence Prust are still keen on the shares. They strongly recommend U.K. investors to buy now although overseas investors, particularly those in Malaysia and Singapore, should wait until after the domestic change in Ayes Hitam. A few more U.K. dividend restraints it is expected that 1976-77 payments will be advanced sharply.

NEW plant for St. Gobain

ENNETH GOODING, INDUSTRIAL CORRESPONDENT

Gobain Pont a Mousson, a second major plant in France using the glass process patented by the brothers of the

will be only Frs.130m. (Fls.154m.) because Saint will use the existing structure of its sheet glass at Aniche in Northern to house the new unit. It will also preserve the jobs at Aniche threatened falling demand for sheet Saint Gobain expects the unit to come on stream 1978 or early in 1979 at stage it will have eliminated the sheet glass plants in France. Germany group will then have two plants in France, three in Italy and two in Belgium. The new Aniche unit will have a capacity in the region of 550 a day, which will put it as the largest float plant in Europe.

British industry received in August from orders for grants and loans made by the Overseas Development Corporation (ODC) for the construction of a steel mill in Pakistan (\$377,546) from Aga Khan.

Public Works Loan Board rates

Effective from September 25, 1976.

Years	By E.P.T.	By E.P.T. maturity	Non-E.P.T. loans A* rate
1, up to 10	12 1/2	14	14 1/2
10, up to 15	14	14 1/2	14 1/2
15, up to 25	14 1/2	14 1/2	14 1/2
25, up to 35	14 1/2	14 1/2	14 1/2
35, up to 45	14 1/2	14 1/2	14 1/2
45, up to 55	14 1/2	14 1/2	14 1/2
55, up to 65	14 1/2	14 1/2	14 1/2
65, up to 75	14 1/2	14 1/2	14 1/2
75, up to 85	14 1/2	14 1/2	14 1/2
85, up to 95	14 1/2	14 1/2	14 1/2
95, up to 100	14 1/2	14 1/2	14 1/2

RECENT ISSUES

Company	Issue	Amount	Price
British Overseas Airways Corp.	£100m. 10% Debentures	£100m.	100
British Overseas Airways Corp.	£100m. 10% Debentures	£100m.	100

EQUITIES

Company	Price	Change
British Overseas Airways Corp.	100	0
British Overseas Airways Corp.	100	0

FIXED INTEREST STOCKS

Company	Price	Change
British Overseas Airways Corp.	100	0
British Overseas Airways Corp.	100	0

"RIGHTS" OFFERS

Company	Price	Change
British Overseas Airways Corp.	100	0
British Overseas Airways Corp.	100	0

FOREIGN EXCHANGES

City	Rate	Change
New York	1.48	0.01
London	1.48	0.01

OTHER MARKETS

Commodity	Price	Change
Gold	1,000	0
Gold	1,000	0

GOLD MARKET

Commodity	Price	Change
Gold	1,000	0
Gold	1,000	0

EXCHANGE CROSS-RATES

City	Rate	Change
New York	1.48	0.01
London	1.48	0.01

EURO-CURRENCY INTEREST RATES

Term	Rate	Change
1 month	12 1/2	0
3 months	12 1/2	0

INSURANCE

Modern technology brings bigger safety risks

THE British Insurance Association, in conjunction with the Health and Safety Executive and the Chemical Industries Association, is holding a one-day conference in London on major hazards on November 3.

The conference was planned when it was thought that the first report of the advisory committee on major hazards would have just become available. There will be four sessions on the various aspects of major hazards, two in the morning, two in the afternoon. Professor Bryan Harvey and Mr. Hugh Lewis, respectively chairman and secretary of the Health and Safety Commission, have invited bodies primarily interested in the report to comment on the committee's general approach, if possible before the end of the day.

The British Insurance Association, the Chemical Industries Association and the Health and Safety Commission are among the bodies invited.

In this country, the disastrous explosion at Flixborough in 1974 emphasises the great dangers to life and property that can flow from advancing technology and bigger and more complex industrial plants. Abroad, the escape of 4 1/2 lbs. of the highly toxic CBrCl₃ from a northern Italy, has emphasised that accidents or mistakes can have long-term consequences which cannot readily be predicted, even when the extent of the disaster is identified and those within its boundaries removed to greater safety.

There is widespread public interest—one is tempted to say disquiet—in the problem of how to live with industrial hazards. There cannot be anything like absolute safety, because mechanical fault and human error cannot be completely eliminated. But there can be substantial improvement from the present situation, and considerable reduction of existing dangers, though the problem is large.

London tea sales

Tea	Price	Change
Assam	1.00	0.01
Assam	1.00	0.01

Norsk Hydro unchanged

OSLO, Sept. 26. NORSK HYDRO, Norway's State-controlled industrial and energy concern, announced to-day that its Board has proposed an unchanged dividend of 12 per cent. for the operating year ending June 30. The Board has also proposed that the value of both Ordinary and Preference shares should be written up from Kr.80 to Kr. 80 per share, effective from July 1, 1976 with the total amount of the write-up—Kr.228m.—to be met from funds.

INSURANCE BASE RATES

Rate	Change
12 1/2	0
12 1/2	0

PIERSON, HELDRING & PIERSON N.V.

Amsterdam, 's-Gravenhage, Haarlem and Rotterdam, and Utrecht.

EUROBONDS

Dollar sector prices pick up

BY TONY HAWKINS

BOND prices hardened in the dollar sector last week in relatively active trading with sentiment encouraged by the trend towards lower interest rates in the U.S.

Feature of the week was the success of \$100m. Credit Suisse (Bahamas) convertible issue which closed 24 hours ahead of schedule in the face of strong demand reflecting the popularity of the offer. The Credit Suisse debentures issued at par on a coupon of 4 per cent. were more than ten times subscribed and traded subsequently in the market at a handsome premium rising to 103/104 at one stage. The conversion premium was set at 8.9 per cent. at the higher end of the 5 to 10 per cent. conversion premium indicated.

Dollar prices came off the top towards the end of the week in response to the latest U.S. money supply figures showing a sharp increase. This tended to counteract, to some extent, the belief current earlier in the week that the Federal Reserve was likely to ease credit policy.

Following the money supply figures there was even speculation of a switch to tighter money on the part of the Fed. but at this stage of the economic cycle with the U.S. economy still sluggish the consensus view remains that lower interest rates will continue in both the U.S. and international capital markets.

Indices

NEW YORK—DOW JONES

	Sept. 24	Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	High	Low	High	Low
Industrial	1009.81	1010.80	1010.05	1014.76	994.51	995.10	1014.76	994.51	1014.76	994.51
HomeBldg	85.44	85.86	85.85	85.85	85.86	85.87	85.86	85.85	85.86	85.87
Transport	22.54	22.54	22.54	22.54	21.54	21.77	22.54	21.54	22.54	21.77
Utilities	87.81	88.16	88.51	89.82	87.81	87.85	89.82	87.81	89.82	87.85
Trading	174.00	174.00	174.00	174.00	174.00	174.00	174.00	174.00	174.00	174.00

* Based on index change from July 1.

STANDARDS AND POORE

	Sept. 24	Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	High	Low	High	Low
Industrial	118.81	118.80	118.80	118.80	118.80	118.80	118.80	118.80	118.80	118.80
Composite	106.80	106.80	106.80	106.80	106.80	106.80	106.80	106.80	106.80	106.80

NEW YORK

	High	Low	Stock	Sept. 24	High	Low	Stock	Sept. 24
10/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/70	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/75	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/80	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/85	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/90	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
10/95	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/00	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/05	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/10	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/70	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/75	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/80	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/85	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/90	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
11/95	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/00	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/05	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/10	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/70	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/75	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/80	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/85	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/90	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
12/95	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/00	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/05	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/10	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/70	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/75	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/80	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/85	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/90	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
13/95	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/00	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/05	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/10	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/70	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/75	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/80	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/85	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/90	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
14/95	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/00	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/05	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/10	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/15	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/20	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/25	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/30	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/35	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/40	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/45	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/50	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/55	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/60	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	26
15/65	37 1/2	37 1/2	Abba Lab	53 1/2	27 1/2	27 1/2	Corning Glass	2

فكر ابن القيم

[illegible]

NOTES

lowest

LEUK'S FINANCIAL DIARY

A following is a record of the principal business and financial engagements during the week. The Board meetings are mainly for the purpose of considering dividends and official indicators not always available whether dividend concerned are interim or final. The sub is shown below are based mainly on last year's time-table.

TO-DAY	
ANY MEETINGS	
10.00	London County Midland Ltd. 3.00
11.00	London County Midland Ltd. 3.00
12.00	London County Midland Ltd. 3.00
13.00	London County Midland Ltd. 3.00
14.00	London County Midland Ltd. 3.00
15.00	London County Midland Ltd. 3.00
16.00	London County Midland Ltd. 3.00
17.00	London County Midland Ltd. 3.00
18.00	London County Midland Ltd. 3.00
19.00	London County Midland Ltd. 3.00
20.00	London County Midland Ltd. 3.00
21.00	London County Midland Ltd. 3.00
22.00	London County Midland Ltd. 3.00
23.00	London County Midland Ltd. 3.00
24.00	London County Midland Ltd. 3.00
25.00	London County Midland Ltd. 3.00
26.00	London County Midland Ltd. 3.00
27.00	London County Midland Ltd. 3.00
28.00	London County Midland Ltd. 3.00
29.00	London County Midland Ltd. 3.00
30.00	London County Midland Ltd. 3.00
31.00	London County Midland Ltd. 3.00
32.00	London County Midland Ltd. 3.00
33.00	London County Midland Ltd. 3.00
34.00	London County Midland Ltd. 3.00
35.00	London County Midland Ltd. 3.00
36.00	London County Midland Ltd. 3.00
37.00	London County Midland Ltd. 3.00
38.00	London County Midland Ltd. 3.00
39.00	London County Midland Ltd. 3.00
40.00	London County Midland Ltd. 3.00
41.00	London County Midland Ltd. 3.00
42.00	London County Midland Ltd. 3.00
43.00	London County Midland Ltd. 3.00
44.00	London County Midland Ltd. 3.00
45.00	London County Midland Ltd. 3.00
46.00	London County Midland Ltd. 3.00
47.00	London County Midland Ltd. 3.00
48.00	London County Midland Ltd. 3.00
49.00	London County Midland Ltd. 3.00
50.00	London County Midland Ltd. 3.00
51.00	London County Midland Ltd. 3.00
52.00	London County Midland Ltd. 3.00
53.00	London County Midland Ltd. 3.00
54.00	London County Midland Ltd. 3.00
55.00	London County Midland Ltd. 3.00
56.00	London County Midland Ltd. 3.00
57.00	London County Midland Ltd. 3.00
58.00	London County Midland Ltd. 3.00
59.00	London County Midland Ltd. 3.00
60.00	London County Midland Ltd. 3.00
61.00	London County Midland Ltd. 3.00
62.00	London County Midland Ltd. 3.00
63.00	London County Midland Ltd. 3.00
64.00	London County Midland Ltd. 3.00
65.00	London County Midland Ltd. 3.00
66.00	London County Midland Ltd. 3.00
67.00	London County Midland Ltd. 3.00
68.00	London County Midland Ltd. 3.00
69.00	London County Midland Ltd. 3.00
70.00	London County Midland Ltd. 3.00
71.00	London County Midland Ltd. 3.00
72.00	London County Midland Ltd. 3.00
73.00	London County Midland Ltd. 3.00
74.00	London County Midland Ltd. 3.00
75.00	London County Midland Ltd. 3.00
76.00	London County Midland Ltd. 3.00
77.00	London County Midland Ltd. 3.00
78.00	London County Midland Ltd. 3.00
79.00	London County Midland Ltd. 3.00
80.00	London County Midland Ltd. 3.00
81.00	London County Midland Ltd. 3.00
82.00	London County Midland Ltd. 3.00
83.00	London County Midland Ltd. 3.00
84.00	London County Midland Ltd. 3.00
85.00	London County Midland Ltd. 3.00
86.00	London County Midland Ltd. 3.00
87.00	London County Midland Ltd. 3.00
88.00	London County Midland Ltd. 3.00
89.00	London County Midland Ltd. 3.00
90.00	London County Midland Ltd. 3.00
91.00	London County Midland Ltd. 3.00
92.00	London County Midland Ltd. 3.00
93.00	London County Midland Ltd. 3.00
94.00	London County Midland Ltd. 3.00
95.00	London County Midland Ltd. 3.00
96.00	London County Midland Ltd. 3.00
97.00	London County Midland Ltd. 3.00
98.00	London County Midland Ltd. 3.00
99.00	London County Midland Ltd. 3.00
100.00	London County Midland Ltd. 3.00

APPOINTMENTS

Chairman change at Bank Leumi

Mr. Ernest I. Japhet, managing director of BANK LEUMI LE ISRAEL B.M., has been appointed chairman in addition to his position as chief executive. He succeeds Dr. E. Lehmann as chairman who is to retire towards the end of the year.

Mr. David G. Lowden of J. Henry Shroder Wagg has been appointed a managing director and chief executive of MTBC & SCHROEDER BANK S.A. Mr. Keiko Sumakawa of Mitsubishi Trust and Banking Corporation has also been appointed managing director and becomes deputy chief executive.

Mr. Terence E. Spratt has become chairman and continues as managing director of SAFEWAY FOOD STORES. Mr. Peter A. Magowan becomes vice-chairman and regional manager for Canada and Overseas. This follows the resignation of Mr. John R. Kellie as a director and chairman of Safeway Food Stores, on his appointment as vice-president in charge of Safeway Stores Inc. eastern region.

Mr. R. F. Hanson has for personal reasons, decided to be relieved of the office of managing director of METTOY. He will continue in a consultative capacity.

Mr. A. J. Adams, formerly director of manufacturing of BERGER PAINTS, is now in Australia covering the group's long term requirements in that country. Mr. R. S. Barrett, director of distribution since 1970, has been appointed director of operations with responsibility for the production and distribution at Berger Paints four U.K. plants.

Mr. R. E. J. van Edijk, managing director of British Enkairon, is leaving the company at the end of January on his appointment as a management Board member of the RABOBANK GROUP OPERATIVE BANKING CO. of Holland, from February 1.

Mr. David Priest has been appointed managing director of BARKING BRASSWARE, an ITI company.

Mr. Toshikazu Nagano has been appointed assistant general manager (loans) of ASSOCIATED JAPANESE BANK (INTERNATIONAL) in place of Mr. Yoshitake Yamashita who is returning to the Mitsui Bank Tokyo. Associated Japanese Bank was established in 1970. Mr. Nagano is a director of Bank of England since 1970.

Mr. Harvey Wild has resigned as a director of SHILOH SPINNERS because of ill health.

Following the acquisition by David I. Japhet of the former chairman of CORNHILL INSURANCE COMPANY, Mr. Thomas Tilling Group on reaching the age of 62 and consequently has retired as chairman and a member of the Board of Cornhill Insurance and for production of the Thomas Tilling Group and chairman of a number of principal operating subsidiaries.

Following the acquisition by David I. Japhet of the former chairman of CORNHILL INSURANCE COMPANY, Mr. Thomas Tilling Group on reaching the age of 62 and consequently has retired as chairman and a member of the Board of Cornhill Insurance and for production of the Thomas Tilling Group and chairman of a number of principal operating subsidiaries.

NOTICE OF REDEMPTION to the holders of Argentine Republic Floating Rate Notes 1977

NOTICE IS HEREBY GIVEN, that pursuant to the Fiscal Agency Agreement dated as of October 25, 1976, there has been selected for redemption on October 29, 1976, through operation of the Sinking Fund, \$5,000,000 principal amount of Argentine Republic Floating Rate Notes 1977. The following are the serial numbers of the Floating Rate Notes which will be redeemed, in whole or in part:

Floating Rate Notes in the principal amount of \$1,000,000 bearing the prefix A to be redeemed in whole.	
11 579 1151 1640 2340 2853 3253 3785 4281 4678 5058 5400 5732 6023 6311 6579 7042 7356 7730 8117 8492 8729 9254 9258	
11 580 1152 1642 2342 2854 3254 3786 4282 4679 5059 5401 5733 6024 6312 6580 7043 7357 7731 8118 8493 8730 9259 9259	
11 581 1153 1643 2343 2855 3255 3787 4283 4680 5060 5402 5734 6025 6313 6581 7044 7358 7732 8119 8494 8731 9260 9260	
11 582 1154 1644 2344 2856 3256 3788 4284 4681 5061 5403 5735 6026 6314 6582 7045 7359 7733 8120 8495 8732 9261 9261	
11 583 1155 1645 2345 2857 3257 3789 4285 4682 5062 5404 5736 6027 6315 6583 7046 7360 7734 8121 8496 8733 9262 9262	
11 584 1156 1646 2346 2858 3258 3790 4286 4683 5063 5405 5737 6028 6316 6584 7047 7361 7735 8122 8497 8734 9263 9263	
11 585 1157 1647 2347 2859 3259 3791 4287 4684 5064 5406 5738 6029 6317 6585 7048 7362 7736 8123 8498 8735 9264 9264	
11 586 1158 1648 2348 2860 3260 3792 4288 4685 5065 5407 5739 6030 6318 6586 7049 7363 7737 8124 8499 8736 9265 9265	
11 587 1159 1649 2349 2861 3261 3793 4289 4686 5066 5408 5740 6031 6319 6587 7050 7364 7738 8125 8500 8737 9266 9266	
11 588 1160 1650 2350 2862 3262 3794 4290 4687 5067 5409 5741 6032 6320 6588 7051 7365 7739 8126 8501 8738 9267 9267	
11 589 1161 1651 2351 2863 3263 3795 4291 4688 5068 5410 5742 6033 6321 6589 7052 7366 7740 8127 8502 8739 9268 9268	
11 590 1162 1652 2352 2864 3264 3796 4292 4689 5069 5411 5743 6034 6322 6590 7053 7367 7741 8128 8503 8740 9269 9269	
11 591 1163 1653 2353 2865 3265 3797 4293 4690 5070 5412 5744 6035 6323 6591 7054 7368 7742 8129 8504 8741 9270 9270	
11 592 1164 1654 2354 2866 3266 3798 4294 4691 5071 5413 5745 6036 6324 6592 7055 7369 7743 8130 8505 8742 9271 9271	
11 593 1165 1655 2355 2867 3267 3799 4295 4692 5072 5414 5746 6037 6325 6593 7056 7370 7744 8131 8506 8743 9272 9272	
11 594 1166 1656 2356 2868 3268 3800 4296 4693 5073 5415 5747 6038 6326 6594 7057 7371 7745 8132 8507 8744 9273 9273	
11 595 1167 1657 2357 2869 3269 3801 4297 4694 5074 5416 5748 6039 6327 6595 7058 7372 7746 8133 8508 8745 9274 9274	
11 596 1168 1658 2358 2870 3270 3802 4298 4695 5075 5417 5749 6040 6328 6596 7059 7373 7747 8134 8509 8746 9275 9275	
11 597 1169 1659 2359 2871 3271 3803 4299 4696 5076 5418 5750 6041 6329 6597 7060 7374 7748 8135 8510 8747 9276 9276	
11 598 1170 1660 2360 2872 3272 3804 4300 4697 5077 5419 5751 6042 6330 6598 7061 7375 7749 8136 8511 8748 9277 9277	
11 599 1171 1661 2361 2873 3273 3805 4301 4700 5080 5420 5752 6043 6331 6599 7062 7376 7750 8137 8512 8749 9278 9278	
11 600 1172 1662 2362 2874 3274 3806 4302 4701 5081 5421 5753 6044 6332 6600 7063 7377 7751 8138 8513 8750 9279 9279	
11 601 1173 1663 2363 2875 3275 3807 4303 4702 5082 5422 5754 6045 6333 6601 7064 7378 7752 8139 8514 8751 9280 9280	
11 602 1174 1664 2364 2876 3276 3808 4304 4703 5083 5423 5755 6046 6334 6602 7065 7379 7753 8140 8515 8752 9281 9281	
11 603 1175 1665 2365 2877 3277 3809 4305 4704 5084 5424 5756 6047 6335 6603 7066 7380 7754 8141 8516 8753 9282 9282	
11 604 1176 1666 2366 2878 3278 3810 4306 4705 5085 5425 5757 6048 6336 6604 7067 7381 7755 8142 8517 8754 9283 9283	
11 605 1177 1667 2367 2879 3279 3811 4307 4706 5086 5426 5758 6049 6337 6605 7068 7382 7756 8143 8518 8755 9284 9284	
11 606 1178 1668 2368 2880 3280 3812 4308 4707 5087 5427 5759 6050 6338 6606 7069 7383 7757 8144 8519 8756 9285 9285	
11 607 1179 1669 2369 2881 3281 3813 4309 4708 5088 5428 5760 6051 6339 6607 7070 7384 7758 8145 8520 8757 9286 9286	
11 608 1180 1670 2370 2882 3282 3814 4310 4709 5089 5429 5761 6052 6340 6608 7071 7385 7759 8146 8521 8758 9287 9287	
11 609 1181 1671 2371 2883 3283 3815 4311 4710 5090 5430 5762 6053 6341 6609 7072 7386 7760 8147 8522 8759 9288 9288	
11 610 1182 1672 2372 2884 3284 3816 4312 4711 5091 5431 5763 6054 6342 6610 7073 7387 7761 8148 8523 8760 9289 9289	
11 611 1183 1673 2373 2885 3285 3817 4313 4712 5092 5432 5764 6055 6343 6611 7074 7388 7762 8149 8524 8761 9290 9290	
11 612 1184 1674 2374 2886 3286 3818 4314 4713 5093 5433 5765 6056 6344 6612 7075 7389 7763 8150 8525 8762 9291 9291	
11 613 1185 1675 2375 2887 3287 3819 4315 4714 5094 5434 5766 6057 6345 6613 7076 7390 7764 8151 8526 8763 9292 9292	
11 614 1186 1676 2376 2888 3288 3820 4316 4715 5095 5435 5767 6058 6346 6614 7077 7391 7765 8152 8527 8764 9293 9293	
11 615 1187 1677 2377 2889 3289 3821 4317 4716 5096 5436 5768 6059 6347 6615 7078 7392 7766 8153 8528 8765 9294 9294	
11 616 1188 1678 2378 2890 3290 3822 4318 4717 5097 5437 5769 6060 6348 6616 7079 7393 7767 8154 8529 8766 9295 9295	
11 617 1189 1679 2379 2891 3291 3823 4319 4718 5098 5438 5770 6061 6349 6617 7080 7394 7768 8155 8530 8767 9296 9296	
11 618 1190 1680 2380 2892 3292 3824 4320 4719 5099 5439 5771 6062 6350 6618 7081 7395 7769 8156 8531 8768 9297 9297	
11 619 1191 1681 2381 2893 3293 3825 4321 4720 5100 5440 5772 6063 6351 6619 7082 7396 7770 8157 8532 8769 9298 9298	
11 620 1192 1682 2382 2894 3294 3826 4322 4721 5101 5441 5773 6064 6352 6620 7083 7397 7771 8158 8533 8770 9299 9299	
11 621 1193 1683 2383 2895 3295 3827 4323 4722 5102 5442 5774 6065 6353 6621 7084 7398 7772 8159 8534 8771 9300 9300	
11 622 1194 1684 2384 2896 3296 3828 4324 4723 5103 5443 5775 6066 6354 6622 7085 7399 7773 8160 8535 8772 9301 9301	
11 623 1195 1685 2385 2897 3297 3829 4325 4724 5104 5444 5776 6067 6355 6623 7086 7400 7774 8161 8536 8773 9302 9302	
11 624 1196 1686 2386 2898 3298 3830 4326 4725 5105 5445 5777 6068 6356 6624 7087 7401 7775 8162 8537 8774 9303 9303	
11 625 1197 1687 2387 2899 3299 3831 4327 4726 5106 5446 5778 6069 6357 6625 7088 7402 7776 8163 8538 8775 9304 9304	
11 626 1198 1688 2388 2900 3300 3832 4328 4727 5107 5447 5779 6070 6358 6626 7089 7403 7777 8164 8539 8776 9305 9305	
11 627 1199 1689 2389 2901 3301 3833 4329 4728 5108 5448 5780 6071 6359 6627 7090 7404 7778 8165 8540 8777 9306 9306	
11 628 1200 1690 2390 2902 3302 3834 4330 4729 5109 5449 5781 6072 6360 6628 7091 7405 7779 8166 8541 8778 9307 9307	
11 629 1201 1691 2391 2903 3303 3835 4331 4730 5110 5450 5782 6073 6361 6629 7092 7406 7780 8167 8542 8779 9308 9308	
11 630 1202 1692 2392 2904 3304 3836 4332 4731 5111 5451 5783 6074 6362 6630 7093 7407 7781 8168 8543 8780 9309 9309	
11 631 1203 1693 2393 2905 3305 3837 4333 4732 5112 5452 5784 6075 6363 6631 7094 7408 7782 8169 8544 8781 9310 9310	
11 632 1204 1694 2394 2906 3306 3838 4334 4733 5113 5453 5785 6076 6364 6632 7095 7409 7783 8170 8545 8782 9311 9311	
11 633 1205 1695 2395 2907 3307 3839 4335 4734 5114 5454 5786 6077 6365 6633 7096 7410 7784 8171 8546 8783 9312 9312	
11 634 1206 1696 2396 2908 3308 3840 4336 4735 5115 5455 5787 6078 6366 6634 7097 7411 7785 8172 8547 8784 9313 9313	
11 635 1207 1697 2397 2909 3309 3841 4337 4736 5116 5456 5788 6079 6367 6635 7098 7412 7786 8173 8548 8785 9314 9314	
11 636 1208 1698 2398 2910 3310 3842 4338 4737 5117 5457 5789 6080 6368 6636 7099 7413 7787 8174 8549 8786 9315 9315	
11 637 1209 1699 2399 2911 3311 3843 4339 4738 5118 5458 5790 6081 6369 6637 7100 7414 7788 8175 8550 8787 9316 9316	
11 638 1210 1700 2400 2912 3312 3844 4340 4739 5119 5459 5791 6082 6370 6638 7101 7415 7789 8176 8551 8788 9317 9317	
11 639 1211 1701 2401 2913 3313 3845 4341 4740 5120 5460 5792 6083 6371 6639 7102 7416 7790 8177 8552 8789 9318 9318	
11 640 1212 1702 2402 2914 3314 3846 4342 4741 5121 5461 5793 6084 6372 6640 7103 7417 7791 8178 8553 8790 9319 9319	
11 641 1213 1703 2403 2915 3315 3847 4343 4742 5122 5462 5794 6085 6373 6641 7104 7418 7792 8179 8554 8791 9320 9320	
11 642 1214 1704 2404 2916 3316 3848 4344 4743 5123 5463 5795 6086 6374 6642 7105 7419 7793 8180 8555 8792 9321 9321	
11 643 1215 1705 2405 2917 3317 3849 4345 4744 5124 5464 5796 6087 6375 6643 7106 7420 7794 8181 8556 8793 9322 9322	
11 644 1216 1706 2406 2918 3318 3850 4346 4745 5125 5465 5797 6088 6376 6644 7107 7421 7795 8182 8557 8794 9323 9323	
11 645 1217 1707 2407 2919 3319 3851 4347 4746 5126 5466 5798 6089 6377 6645 7108 7422 7796 8183 8558 8795 9324 9324	
11 646 1218 1708 2408 2920 3320 3852 4348 4747 5127 5467 5799 6090 6378 6646 7109 7423 7797 8184 8559 8796 9325 9325	
11 647 1219 1709 2409 2921 3321 3853 4349 4748 5128 5468 5800 6379 6647 7110 7424 7798 8185 8560 8797 9326 9326	
11 648 1220 1710 2410 2922 3322 3854 4350 4749 5129 5469 5801 6380 6648 7111 7425 7799 8186 8561 8798 9327 9327	
11 649 1221 1711 2411 2923 3323 3855 4351 4750 5130 5470 5802 6381 6649 7112 7426 7800 8187 8562 8799 9328 9328	
11 650 1222 1712 2412 2924 3324 3856 4352 4751 5131 5471 5803 6382 6650 7113 7427 7801 8188 8563 8800 9329 9329	
11 651 1223 1713 2413 2925 3325 3857 4353 4752 5132 5472 5804 6383 6651 7114 7428 7802 8189 8564 8801 9330 9330	
11 652 1224 1714 2414 2926 3326 3858 4354 4753 5133 5473 5805 6384 6652 7115 7429 7803 8190 8565 8802 9331 9331	
11 653 1225 1715 2415 2927 3327 3859 4355 4754 5134 5474 5806 6385 6653 7116 7430 7804 8191 8566 8803 9332 9332	
11 654 1226 1716 2416 2928 3328 3860 4356 4755 5135 5475 5807 6386 6654 7117 7431 7805 8192 8567 8804 9333 9333	
11 655 1227 1717 2417 2929 3329 3861 4357 4756 5136 5476 5808 6387 6655 7118 7432 7806 8193 8568 8805 9334 9334	
11 656 1228 1718 2418 2930 3330 3862 4358 4757 5137 5477 5809 6388 6656 7119 7433 7807 8194 8569 8806 9335 9335	
11 657 1229 1719 2419 2931 3331 3863 4359 4758 5138 5478 5810 6389 6657 7120 7434 7808 8195 8570 8807 9336 9336	
11 658 1230 1720 2420 2932 3332 3864 4360 4759 5139 5479 5811 6390 6658 7121 7435 7809 8196 8571 8808 9337 9337	
11 659 1231 1721 2421 2933 3333 3865 4361 4760 5140 5480 5812 6391 6659 7122 7436 7810 8197 8572 8809 9338 9338	
11 660 1232 1722 2422 2934 3334 3866 4362 4761 5141 5481 5813 6392 6660 7123 7437 7811 8198 8573 8810 9339 9339	
11 661 1233 1723 2423 2935 3335 3867 4363 4762 5142 5482 5814 6393 6661 7124 7438 7812 8199 8574 8811 9340 9340	
11 662 1234 1724 2424 2936 3336 3868 4364 4763 5143 5483 5815 6394 6662 7125 7439 7813 8200 8575 8812 9341 9341	
11 663 1235 1725 2425 2937 3337 3869 4365 4764 5144 5484 5816 6395 6663 7126 7440 7814 8201 8576 8813 9342 9342	
11 664 1236 1726 2426 2938 3338 3870 4366 4765 5145 5485 5817 6396 6664 7127 7441 7815 8202 8577 8814 9343 9343	
11 665 1237 1727 2427 2939 3339 3871 4367 4766 5146 5486 5818 6397 6665 7128 7442 7816 8203 8578 8815 9344 9344	
11 666 1238 1728 2428 2940 3340 3872 4368 4767 5147 5487 5819 6398 6666 7129 7443 7817 8204 8579 8816 9345 9345	
11 667 1239 1729 2429 2941 3341 3873 4369 4768 5148 5488 5820 6399 6667 7130 7444 7818 8205 8580 8817 9346 9346	
11 668 1240 1730 2430 2942 3342 3874 4370 4769 5149 5489 5821 6400 6668 7131 7445 7819 8206 8581 8818 9347 9347	
11 669 1241 1731 2431 2943 3343 3875 4371 4770 5150 5490 5822 6401 6669 7132 7446 7820 8207 8582 8819 9348 9348	
11 670 1242 1732 2432 2944 3344 3876 4372 4771 5151 5491 5823 6402 6670 7133 7447 7821 8208 8583 8820 9349 9349	
11 671 1243 1733 2433 2945 3345 3877 4373 4772 5152 5492 5824 6403 6671 7134 7448 7822 8209 8584 8821 9350 9350	
11 672 1244 1734 2434 2946 3346 3878 4374 4773 5153 5493 5825 6404 6672 7135 7449 7823 8210 8585 8822 9351 9351	
11 673 1245 1735 2435 2947 3347 3879 4375 4774 5154 5494 5826 6405 6673 7136 7450 7824 8211 8586 8823 9352 9352	
11 674 1246 1736 2436 2948 3348 3880 4376 4775 5155 5495 5827 6406 6674 7137 7451 7825 8212 8587 8824 9353 9353	

Serving the world
with
financial expertise.

SANWA
BANK
Tokyo, Japan

MINES—Continued

Dividend	Stock	Price	Dividend	Stock	Price
Feb. 1934	100	100	Feb. 1934	100	100
Mar. 1934	100	100	Mar. 1934	100	100
Apr. 1934	100	100	Apr. 1934	100	100
May 1934	100	100	May 1934	100	100
Jun. 1934	100	100	Jun. 1934	100	100
Jul. 1934	100	100	Jul. 1934	100	100
Aug. 1934	100	100	Aug. 1934	100	100
Sep. 1934	100	100	Sep. 1934	100	100
Oct. 1934	100	100	Oct. 1934	100	100
Nov. 1934	100	100	Nov. 1934	100	100
Dec. 1934	100	100	Dec. 1934	100	100
Jan. 1935	100	100	Jan. 1935	100	100
Feb. 1935	100	100	Feb. 1935	100	100
Mar. 1935	100	100	Mar. 1935	100	100
Apr. 1935	100	100	Apr. 1935	100	100
May 1935	100	100	May 1935	100	100
Jun. 1935	100	100	Jun. 1935	100	100
Jul. 1935	100	100	Jul. 1935	100	100
Aug. 1935	100	100	Aug. 1935	100	100
Sep. 1935	100	100	Sep. 1935	100	100
Oct. 1935	100	100	Oct. 1935	100	100
Nov. 1935	100	100	Nov. 1935	100	100
Dec. 1935	100	100	Dec. 1935	100	100
Jan. 1936	100	100	Jan. 1936	100	100
Feb. 1936	100	100	Feb. 1936	100	100
Mar. 1936	100	100	Mar. 1936	100	100
Apr. 1936	100	100	Apr. 1936	100	100
May 1936	100	100	May 1936	100	100
Jun. 1936	100	100	Jun. 1936	100	100
Jul. 1936	100	100	Jul. 1936	100	100
Aug. 1936	100	100	Aug. 1936	100	100
Sep. 1936	100	100	Sep. 1936	100	100
Oct. 1936	100	100	Oct. 1936	100	100
Nov. 1936	100	100	Nov. 1936	100	100
Dec. 1936	100	100	Dec. 1936	100	100
Jan. 1937	100	100	Jan. 1937	100	100
Feb. 1937	100	100	Feb. 1937	100	100
Mar. 1937	100	100	Mar. 1937	100	100
Apr. 1937	100	100	Apr. 1937	100	100
May 1937	100	100	May 1937	100	100
Jun. 1937	100	100	Jun. 1937	100	100
Jul. 1937	100	100	Jul. 1937	100	100
Aug. 1937	100	100	Aug. 1937	100	100
Sep. 1937	100	100	Sep. 1937	100	100
Oct. 1937	100	100	Oct. 1937	100	100
Nov. 1937	100	100	Nov. 1937	100	100
Dec. 1937	100	100	Dec. 1937	100	100
Jan. 1938	100	100	Jan. 1938	100	100
Feb. 1938	100	100	Feb. 1938	100	100
Mar. 1938	100	100	Mar. 1938	100	100
Apr. 1938	100	100	Apr. 1938	100	100
May 1938	100	100	May 1938	100	100
Jun. 1938	100	100	Jun. 1938	100	100
Jul. 1938	100	100	Jul. 1938	100	100
Aug. 1938	100	100	Aug. 1938	100	100
Sep. 1938	100	100	Sep. 1938	100	100
Oct. 1938	100	100	Oct. 1938	100	100
Nov. 1938	100	100	Nov. 1938	100	100
Dec. 1938	100	100	Dec. 1938	100	100
Jan. 1939	100	100	Jan. 1939	100	100
Feb. 1939	100	100	Feb. 1939	100	100
Mar. 1939	100	100	Mar. 1939	100	100
Apr. 1939	100	100	Apr. 1939	100	100
May 1939	100	100	May 1939	100	100
Jun. 1939	100	100	Jun. 1939	100	100
Jul. 1939	100	100	Jul. 1939	100	100
Aug. 1939	100	100	Aug. 1939	100	100
Sep. 1939	100	100	Sep. 1939	100	100
Oct. 1939	100	100	Oct. 1939	100	100
Nov. 1939	100	100	Nov. 1939	100	100
Dec. 1939	100	100	Dec. 1939	100	100
Jan. 1940	100	100	Jan. 1940	100	100
Feb. 1940	100	100	Feb. 1940	100	100
Mar. 1940	100	100	Mar. 1940	100	100
Apr. 1940	100	100	Apr. 1940	100	100
May 1940	100	100	May 1940	100	100
Jun. 1940	100	100	Jun. 1940	100	100
Jul. 1940	100	100	Jul. 1940	100	100
Aug. 1940	100	100	Aug. 1940	100	100
Sep. 1940	100	100	Sep. 1940	100	100
Oct. 1940	100	100	Oct. 1940	100	100
Nov. 1940	100	100	Nov. 1940	100	100
Dec. 1940	100	100	Dec. 1940	100	100
Jan. 1941	100	100	Jan. 1941	100	100
Feb. 1941	100	100	Feb. 1941	100	100
Mar. 1941	100	100	Mar. 1941	100	100
Apr. 1941	100	100	Apr. 1941	100	100
May 1941	100	100	May 1941	100	100
Jun. 1941	100	100	Jun. 1941	100	100
Jul. 1941	100	100	Jul. 1941	100	100
Aug. 1941	100	100	Aug. 1941	100	100
Sep. 1941	100	100	Sep. 1941	100	100
Oct. 1941	100	100	Oct. 1941	100	100
Nov. 1941	100	100	Nov. 1941	100	100
Dec. 1941	100	100	Dec. 1941	100	100
Jan. 1942	100	100	Jan. 1942	100	100
Feb. 1942	100	100	Feb. 1942	100	100
Mar. 1942	100	100	Mar. 1942	100	100
Apr. 1942	100	100	Apr. 1942	100	100
May 1942	100	100	May 1942	100	100
Jun. 1942	100	100	Jun. 1942	100	100
Jul. 1942	100	100	Jul. 1942	100	100
Aug. 1942	100	100	Aug. 1942	100	100
Sep. 1942	100	100	Sep. 1942	100	100
Oct. 1942	100	100	Oct. 1942	100	100
Nov. 1942	100	100	Nov. 1942	100	100
Dec. 1942	100	100	Dec. 1942	100	100
Jan. 1943	100	100	Jan. 1943	100	100
Feb. 1943	100	100	Feb. 1943	100	100
Mar. 1943	100	100	Mar. 1943	100	100
Apr. 1943	100	100	Apr. 1943	100	100
May 1943	100	100	May 1943	100	100
Jun. 1943	100	100	Jun. 1943	100	100
Jul. 1943	100	100	Jul. 1943	100	100
Aug. 1943	100	100	Aug. 1943	100	100
Sep. 1943	100	100	Sep. 1943	100	100
Oct. 1943	100	100	Oct. 1943	100	100
Nov. 1943	100	100	Nov. 1943	100	100
Dec. 1943	100	100	Dec. 1943	100	100
Jan. 1944	100	100	Jan. 1944	100	100
Feb. 1944	100	100	Feb. 1944	100	100
Mar. 1944	100	100	Mar. 1944	100	100
Apr. 1944	100	100	Apr. 1944	100	100
May 1944	100	100	May 1944	100	100
Jun. 1944	100	100	Jun. 1944	100	100
Jul. 1944	100	100	Jul. 1944	100	100
Aug. 1944	100	100	Aug. 1944	100	100
Sep. 1944	100	100	Sep. 1944	100	100
Oct. 1944	100	100	Oct. 1944	100	100
Nov. 1944	100	100	Nov. 1944	100	100
Dec. 1944	100	100	Dec. 1944	100	100
Jan. 1945	100	100	Jan. 1945	100	100
Feb. 1945	100	100	Feb. 1945	100	100
Mar. 1945	100	100	Mar. 1945	100	100
Apr. 1945	100	100	Apr. 1945	100	100
May 1945	100	100	May 1945	100	100
Jun. 1945	100	100	Jun. 1945	100	100
Jul. 1945	100	100	Jul. 1945	100	100
Aug. 1945	100	100	Aug. 1945	100	100
Sep. 1945	100	100	Sep. 1945	100	100
Oct. 1945	100	100	Oct. 1945	100	100
Nov. 1945	100	100	Nov. 1945	100	100
Dec. 1945	100	100	Dec. 1945	100	100
Jan. 1946	100	100	Jan. 1946	100	100
Feb. 1946	100	100	Feb. 1946	100	100
Mar. 1946	100	100	Mar. 1946	100	100
Apr. 1946	100	100	Apr. 1946	100	100
May 1946	100	100	May 1946	100	100
Jun. 1946	100	100	Jun. 1946	100	100
Jul. 1946	100	100	Jul. 1946	100	100
Aug. 1946	100	100	Aug. 1946	100	100
Sep. 1946	100	100	Sep. 1946	100	100
Oct. 1946	100	100	Oct. 1946	100	100
Nov. 1946	100	100	Nov. 1946	100	100
Dec. 1946	100	100	Dec. 1946	100	100
Jan. 1947	100	100	Jan. 1947	100	100
Feb. 1947	100	100	Feb. 1947	100	100
Mar. 1947	100	100	Mar. 1947	100	100
Apr. 1947	100	100	Apr. 1947	100	100
May 1947	100	100	May 1947	100	100
Jun. 1947	100	100	Jun. 1947	100	100
Jul. 1947	100	100	Jul. 1947	100	100
Aug. 1947	100	100	Aug. 1947	100	100
Sep. 1947	100	100	Sep. 1947	100	100
Oct. 1947	100	100	Oct. 1947	100	100
Nov. 1947	100	100	Nov. 1947	100	100
Dec. 1947	100	100	Dec. 1947	100	100
Jan. 1948	100	100	Jan. 1948	100	100
Feb. 1948	100	100	Feb. 1948	100	100
Mar. 1948	100	100	Mar. 1948	100	100
Apr. 1948	100	100	Apr. 1948	100	100
May 1948	100	100	May 1948	100	100
Jun. 1948	100	100	Jun. 1948	100	100
Jul. 1948	100	100	Jul. 1948	100	100
Aug. 1948	100	100	Aug. 1948	100	100
Sep. 1948	100	100	Sep. 1948	100	100
Oct. 1948	100	100	Oct. 1948	100	100
Nov. 1948	100	100	Nov. 1948	100	100
Dec. 1948	100	100	Dec. 1948	100	100
Jan. 1949	100	100	Jan. 1949	100	100
Feb. 1949	100	100	Feb. 1949	100	100
Mar. 1949	100	100	Mar. 1949	100	100
Apr. 1949	100	100	Apr. 1949	100	100
May 1949	100	100	May 1949	100	100
Jun. 1949	100	100	Jun. 1949	100	100
Jul. 1949	100	100	Jul. 1949	100	100
Aug. 1949	100	100	Aug. 1949	100	100
Sep. 1949	100	100	Sep. 1949	100	100
Oct. 1949	100	100	Oct. 1949	100	100
Nov. 1949	100	100	Nov. 1949	100	100
Dec. 1949	100	100	Dec. 1949	100	100
Jan. 1950	100	100	Jan. 1950	100	100
Feb. 1950	100	100	Feb. 1950	100	100
Mar. 1950	100	100	Mar. 1950	100	100
Apr. 1950	100	100	Apr. 1950	100	100
May 1950	100	100	May 1950	100	100
Jun. 1950	100	100	Jun. 1950	100	100
Jul. 1950	100	100	Jul. 1950	100	100
Aug. 1950	100	100	Aug. 1950	100	100
Sep. 1950	100	100	Sep. 1950	100	100
Oct. 1950	100	100	Oct. 1950	100	100
Nov. 1950	100	100	Nov. 1950	100	100
Dec. 1950	100	100	Dec. 1950	100	100
Jan. 1951	100	100	Jan. 1951		

Private sector steel plans £50m. plant

BY ROY HODSON

PLANS BY A consortium of private sector steel companies to build a £50m. iron ore reduction plant to provide a common source of raw material are thought likely to go ahead either at Arrow Slake, Tyne and Wear, or at Hartlepool, Teesside.

An announcement that the investment will be supported by Government grants is expected within a month. Before then a final decision on the site must be made. The consortium has been negotiating for some time with the local authorities, and assessing terms and facilities which would be available.

Talks have been taking place in the last few days between members of the British Independent Steel Producers' Association and the Department of Industry over the ore plant and the level of forthcoming Government support.

Under the statutory grants, the Government would contribute about £11m. towards a £50m. plant, the scale of the companies want to build. But the Government may concede a case for extra financial assistance in the form of loans or interest relief

Scrap prices

The sharp rise in scrap prices in the first three months of 1976 helped the steelmakers make their decision. Although scrap prices have eased, there is every prospect in the long term of a growing permanent shortage of sufficient scrap to meet the increasing number of electric arc furnaces in Britain and Europe.

The ore reduction plant proposed was helped forward recently when the Government

accepted the view put in sector reports that scrap shortages could inhibit steel-making in the future and that consequent shortages of steel could damage economic expansion.

The ore reduction plant will be based on the use of imported iron ore arriving at a deep-water terminal alongside the chosen site. Natural gas is expected to be the fuel used for the reducing process. The crude form of iron produced will be used to supplement supplies of scrap to feed the member companies' steel-making furnaces and foundries. Most of the material will go to Sheffield and Birmingham steelworks and foundries. Quantities will also be needed for steel-making in the south-east, at Sheerness.

An annual production level for the plant of 800,000 tonnes of ferrous material has been discussed. Such a supply would be a long way towards easing raw material shortages for the 3m. tonnes a year private sector industry.

The size of the plant will depend on which of three competitive ore-reducing systems is chosen. It is understood that the private steel consortium is close to a decision on the design.

Brazil uranium deal worth £10m. a year

BY DAVID FISHLOCK IN RIO DE JANEIRO

BRAZIL IS close to signing a nuclear fuel contract worth £10m. a year to Britain throughout the 1980s.

The contract is for the enrichment of uranium for Brazil's second and third nuclear power stations, totalling 2,600 MW output, under construction by West Germany at Angra dos Reis, near Rio de Janeiro.

Brazil has negotiated for enrichment supplies through the Bonn Government, under the bilateral nuclear agreement of 1975 with West Germany. Crenco, the Anglo-German-Dutch uranium enrichment company, will provide the enrichment for the stations.

Although Brazil has not signed the non-proliferation treaty, the enriched uranium will be delivered under international safeguards reinforced in several important respects — as the British Government sees it — by the terms of the Brazilian-German treaty.

It will be the largest single contract secured by Ureco for its novel gas centrifuge method of enrichment. Its previous big contracts have been with U.K. and West German utilities.

Ureco, one-third owned by British Nuclear Fuels, has factories under construction at Capenhurst, near Chester, where the U.K. government recently approved a £300m. investment programme, and at Almelo in Holland. Both factories are expected to be in operation before the end of the year.

Untried

Brazilian officials reckon that a small jet-nozzle enrichment facility in Brazil capable of servicing about 3,000 MW of nuclear plants would take five to seven years to commission on the most optimistic assumptions. The new method, which the partners are funding as a joint technology programme at a German research centre, has not yet had its crucial full-size trials.

Brazil sees enrichment as an efficient means of storing electricity, so avoiding the need to transmit some of its still untapped hydro-electric resources about 2,000 miles to the nearest load centre. It is examining the possibilities of building a jet-nozzle plant high up the Amazon.

According to one Brazilian authority, the energy losses in such a process, at 5 to 6 per cent, are similar to the energy losses in transporting and processing oil.

THE LEX COLUMN

Tate after the takeover

A rights issue, a string of substantial acquisitions, and high rates of profitability have transformed Tate and Lyle's profile over the last two years. Including £48m. for Manbre and Garton, the group has spent nearly £70m. on cash acquisitions over the last nine months — which is roughly equivalent to its aggregate spending on fixed assets over the last four years.

There have been two main sources of finance for this takeover activity. The first stems from the sharp fall in sugar prices, which has released a large slab of the extra cash sucked into working capital during 1974-75. Stocks and debtors, less creditors, rose by £47m. during that year — and could have dropped by something like £40m. in the latest 12-month period.

Strong cash flow

At the same time, the group's continuing profits progress — combined with negligible tax liabilities in the U.K. during 1975-76 — may have pushed net cash flow up to more than £50m. over the year just ending, which is getting on for £30m. more than it has spent on fixed assets.

As a result, short term borrowings of £8m. last September had been converted into net cash balances of £38m. immediately before the Manbre bid. After taking Manbre into the figures, Tate will have term loans of £60m. or so and net short term borrowings of perhaps £10m. to £15m.

Of course there is always the risk that the sugar price could shoot back up again. Tate suggests that since a sizeable part of its inventories now relate to EEC supplies, its working capital needs could be more insulated against world price movements than used to be the case. More tangibly, it can point to the fact that short term debt after completion of the Manbre bid will actually not be much higher than it was prior to 1973-74 which means that its gearing ratios have fallen considerably. In addition, half the cost of the latest bid has been funded by ten-year facilities with three banks.

The acquisition has a modestly favourable impact on earnings, which stand to rise from roughly 48p to 49p per share. More important from the bidder's point of view is the fact that it will provide a relatively stable source of earnings.

Tate is sensitive about its unimpaired stock market image, which is reflected in a yield of nearly 8 per cent and a p/e of just over 5, and is largely the result of its heavy dependence on "commodity handling, trading, storage and distribution."

This is its extremely vague classification for a wide group of potentially volatile businesses which could account for roughly two-thirds of group profits in 1975-76. A probable motive for all this year's acquisitions has been Tate's wish to correct this imbalance, although Tate appears happy enough about the current trend of its "storage" earnings.

Longer term, the group is now wholly responsible for financing the contraction of the cane sugar refining industry, which could involve a total of perhaps 1,500 redundancies towards the end of 1977 and during 1978. It also has to fulfil its undertakings to the Government about how it will behave after it has swallowed Manbre, and it will probably want to think about its own customer relations too: Tate was evidently taken aback by the hostile reaction of the main consumer bodies to its takeover.

However, none of this seems likely to create any great strain for a group with combined cash flow of around £60m. The capacity problem would have had to be tackled in one way or another whatever happened. Not much has been disclosed about the deal with the Government which helped to steer the bid away from the clutches of the Monopolies Commission, but in any event Tate would obviously have had to tread carefully.

A promise to recognise any special trade terms traditionally extended to Manbre's customers in these circumstances, and although in the complete range of products currently produced by the two groups will have to be maintained for as long as customers require, it looks as though Tate will be allowed to rationalise common product lines.

Sweet success

In return for these promises, Tate now has complete control of an industry which has an assured source of supply, stable demand, and inflation protected margins. It has overcome the threat to its market share posed by the expansion of the beet when such a scheme is wound.

proved the overall balance of its profit and loss account. A bid which in the early stages appeared to face almost insurmountable hurdles has thus been bought smoothly to its conclusion with some time to spare.

Import deposits

The surge in gift sales over the past week has provided a very short term solution to the problem of excessive monetary growth. But mopping up the surplus liquidity of the institutions is very much the easy first step, and in the next few weeks the discussion is going to centre on the next stages in the process of creating some kind of economic balance. The severity of the recent rise in interest rates, in disregard of the effects on industrial confidence, is reflection of the fact that there are no soft options left. In the background, of course, is the impending application for support from the International Monetary Fund, which will be asking for constraints much tougher than the current £30m. limit on domestic credit expansion.

Speaking on television yesterday the Chancellor appeared confident that further fiscal measures could be avoided, and deprecated the introduction of widespread import controls as an answer to high unemployment. There are indications from Whitehall, however, that the potential impact of import deposits on the Government's financial deficit has not exactly gone unnoticed. The rise announced in July in National Insurance contributions showed that the Government is not averse to putting pressure on the corporate sector as it emerges into financial surplus.

How import deposits would further increase the squeeze on the corporate sector is a subject now examined by brokers Hetherwick Stirling, drawing on the precedents in the previous scheme which ran from November 1968 to December 1970. They estimate that a similar scheme — 50 per cent deposits for six months — would raise around £35m. There would have to be heavy import controls to prevent companies simply borrowing the cash. Short term interest rates would remain high. During the first year of the 1968-70 scheme monetary growth slowed to 3 per cent, but naturally monetary problems tend to re-emerge when such a scheme is wound.

Fire cuts British Aluminium production by 7,000 tonnes

BY RHYS DAVID

A FIRE which has put half British Aluminium's Invergordon smelter in Scotland out of action is likely to cost the company several million pounds.

Lost production and damage to plant are still being assessed. It is expected to be 10 or 12 weeks before the smelter is fully back in operation.

The fire last week occurred in an electrical rectifier of current being supplied to the pot lines. The interruption in supply affected roughly half the plant, causing alumina and flux to solid around 150 aluminium producing pots.

The solid will have to be dug out of each pot individually, a long process.

Lost production, according to Mr. Ronald Utiger, managing director of British Aluminium, is likely to be about 6,000 to 8,000 tonnes — and the metal currently fetches £379 a tonne on the U.K. market — out of yearly production capacity around 100,000 tonnes.

Mr. Utiger said yesterday that the loss of production would be unlikely to result in any supply shortages in the U.K. The company, which uses a large part of its own production in fabricating activities such as foil manufacture, had already been offered aluminium from the Continent.

Loss of production comes with demand in the U.K. market

some 15-20 per cent. ahead of last year's depressed levels, as a result of the piecemeal activity in the motor vehicle, packaging, and other industries.

Because of a strike affecting plants run by Canadian parent Alcan, another major supplier to the U.K. market, is operating a system of *force majeure* on its contracts. This is not thought to have created major difficulties yet.

Apart from its Invergordon production, British Aluminium can draw on supplies from two small smelters in the Scottish Highlands with a combined annual output around 38,000 tonnes.

Bank confirms rise in industry loans

BY MICHAEL BLANDEN

THE STRONG rise in bank lending to manufacturing industry indicated by recent figures is confirmed by the latest analysis published by the Bank of England.

This shows that in the three months to mid-August, the level of advances to U.K. residents increased by £1,545m., excluding the direct effect of the depreciation of sterling on foreign currency borrowings.

Lending to manufacturing industry rose by £581m., the first increase recorded since the statistics were reorganised in May last year.

The rise was widely spread among the various categories of borrowers, and supports the recent evidence of renewed demand for loans provided by the monthly figures.

The growth in lending provides part of the background to the recent measures by the authorities to control the expansion of the money supply.

However, the most recent statistics have indicated that the increase up to July may have exaggerated the underlying trend, and partly reflected special factors including the impact of changes in leads and lags in external payments in response to the weakness of sterling earlier this year.

Lending to support manufacturing industry remains at the

Continued from Page 1 Rhodesia

Government here rather than an attempt to close the door on negotiations.

There can be little doubt that all five Presidents — and the Rhodesian nationalist leaders who had been meeting with them in the Zambian capital — have been angered at the way Mr. Smith tried in his broadcast to suggest that whites would remain in control until the final transfer to majority rule in two years' time.

The particular bone of contention has been Mr. Smith's insistence that the proposed Council of State to be composed equally of black and white members but with a white chairman, would be the "supreme body" with the Council of Ministers, which would have a black majority, in a subordinate position.

Not only did Mr. Smith suggest in his broadcast that the Council of State would be paramount, he has, it is understood, briefed members of his party caucus to that effect and news media here also have been making the same interpretation.

It is quite clear, however, that the African Presidents understood Dr. Kissinger's proposal to mean that power would reside in the Council of Ministers, with its African majority, and that the Council of State operating much as a government-general would be a "normal" colonial situation. They understood the U.S. package to mean that there would be an African transitional government in power within the next few weeks.

A further point of difference also comes out clearly from the Lusaka communiqué: the African Presidents believe that there must be a formal conference, which they want Britain, with its residual colonial responsibility, to call, to negotiate the setting up of the transitional government. They mistrust Mr. Smith's intentions and believe it essential that Mr. Smith resigns on the establishment of the interim government.

They should believe that there should be a formal conference, again chaired by Britain, to work out the final constitution. Since not all the details of the Rhodesian pact have been released it is not clear whether this, or Mr. Smith's interpretation that the constitution should be formulated in Rhodesia, is the correct one.

However, it seems clear that in Lusaka African politics have intervened. President Neto of Angola, whose country has a heavy debt to the Soviet Union, had echoed Soviet rejection of the Kissinger proposals before he arrived in Lusaka. It is felt that there may be divisions within the Mozambique Government about the relevance of a Rhodesian-negotiated settlement on the U.S. terms, while, on a different level, there is also apparently opposition from some of the Rhodesian guerrillas based in Mozambique.

Ministry of Defence may lose more staff

BY DAVID CHURCHILL, LABOUR STAFF

FURTHER cuts of at least 10 per cent in the manpower of the Ministry of Defence, the largest Civil Service department, are included in a confidential report by an eight-man management review team now in the hands of senior Whitehall officials.

The staff cuts will mean nearly 3,000 fewer MOD posts by 1979 and will come mainly from senior Whitehall Civil Servants in the department, including some cuts at deputy and under-secretary level.

The MOD's scientific research and development establishment is likely to be particularly hard hit.

Cuts of up to 40,000 other MOD posts, announced earlier this year as part of the Defence Review and other cost-cutting exercises, will mainly come from clerical and junior grades and industrial Civil Servants at home and abroad.

A small working party of top Civil Servants in the Ministry will be set up to consider ways of implementing the review team's proposals.

The review team, headed by Mr. Kenneth Macdonald, an assistant secretary, spent the last six months examining all aspects of MOD structure and administration with a view to cost-saving.

Its most controversial proposals are expected to be further

Leyland buses in Singapore tests

BY TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

A FLEET of 20 Leyland double-deck buses is going into service in Singapore for an evaluation exercise similar to one being conducted with eight vehicles in New York.

The deal with Singapore is another indication of rising world interest in double-deck vehicles to make better use of congested city roads. Singapore will be using Leyland Atlanteans, which cost about £30,000 each.

Leyland, the only major supplier of double-deck buses and has a wealth of experience of manufacturing these vehicles for all types of climates, from the U.K. to South Africa, Hong Kong and Iran.

At present it is adopting a cautiously optimistic attitude towards these new orders. It has proved notoriously difficult in the past to convert interest in double-deckers into hard

French say 'Yes' to British accountants

By Michael Lafferty

THE LONG-RUNNING dispute between the French Ministry of Education and the international accounting firms operating in France, most of them being of British origin, may be nearing its end.

This follows last week's decision of the French Ministry of Education to recognise the qualifications of seven British chartered accountants, partners in the Paris offices of four international accounting firms, as being equivalent to those of French accountants. They include four Price Waterhouse partners, two Arthur Young partners, and one from Turquand Barton Mayhew.

To obtain recognition, each of the seven had to undergo a 15-minute oral examination before a Government-appointed committee last May. They also had to give details of their experience and education. Exam questions covered professional ethics, inflation accounting, taxation and accounting principles.

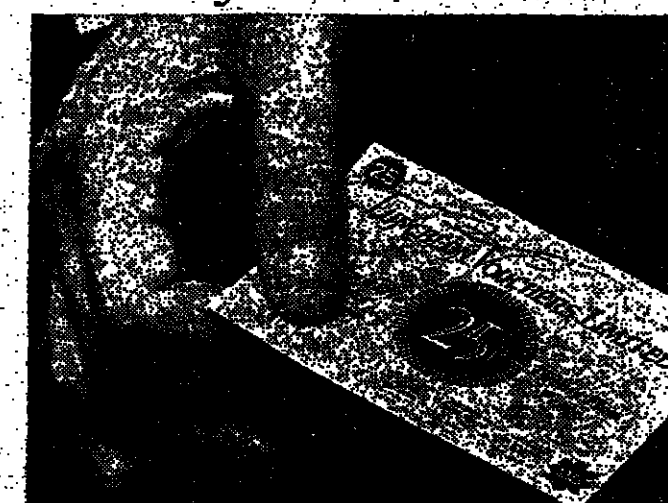
Second group

A second group of eight partners took the examination on June 24, and another group of 15, including the senior partners of Price Waterhouse, Whimsey Murray Ernst and Ernst, and Turquand Barton Mayhew, are due to go before the committee on Thursday.

The international firms had been tolerated, mainly because they confined their activities to subsidiaries of U.S. and U.K. companies.

But the problem erupted into open conflict a few years ago when it became clear that the international firms were making big inroads into French industry. This led to demands from prominent French accountants that the international firms be banished from France.

Give Luncheon Vouchers It's the least you can do!



You'll both benefit.

It's the least you can do to get the best results from your employees. This isn't a charity advertisement. It's more of a sound business proposition which 28,000 employers have already discovered.

By encouraging their employees to have a proper meal in the day they are more likely to have a proper day's work in return. Employees like to feel looked after; they respond well. You know this and you can do something about it by giving Luncheon Vouchers. Not only can you complete your staff more easily, but you can keep staff more easily.

The scheme is nationwide with 27,000 restaurants accepting Luncheon Vouchers.

All Luncheon Voucher benefits — including the established tax concession — are detailed in our brochure. This is free and without commitment. Sent to you confidentially — with our compliments.

Luncheon Vouchers

Please send me the Luncheon Voucher Service brochure.

Name _____

Company _____

Address _____

FT27/9

LUNCHEON VOUCHERS LTD.
22 Golden Square, London W1R 9AD
Branches in Birmingham, Liverpool and Glasgow.

Registered at the Post Office. Printed by St. Clement's Press Ltd. for and published by The Financial Times Ltd., Blackfriars House, Cannon Street, London EC4A 3DF. © The Financial Times Ltd., 1976

كندا من الاموال